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Thesis

THE PLATONIC AND ARISTOTELIAN CRITICISM
OF PHENOMENALISM

by

Robert Nelson Beck
(A. B., Clark University, 1947)

submitted in partial fulfilment of the
requirements for the degree of
Master of Arts

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THE PLATONIC AND ARISTOTELIAN CRITICISM OF PHENOMENALISM

I N T R O D U C T I O N

1. Purpose of the Thesis

The purpose of this thesis is to present a concentrated study of the Platonic and Aristotelian theories of epistemology and metaphysics in their relationship to the doctrine of phenomenalism.

This study has been motivated by two factors: 1) phenomenalism is essentially an anti-metaphysical epistemological doctrine;¹ and 2) the study of epistemology is of prime importance to philosophy.² Indeed, the gauntlet which Socrates hurled when he asked the climactic question, "What is knowledge?",³ is still a challenge to philosophy. A study of criticisms of phenomenalism is truly vital for "those who try to see beyond appearance to the reality that is its essence."⁴

1. For a discussion of phenomenalism and its relation to positivism and naturalism, see below, 2-3.

2. Brightman writes: "It appears to the present writer that the best way to begin the study of philosophy proper is to attempt to answer the question: How can we distinguish truth from error? No progress whatever can be made in understanding our experience without some means of distinguishing what is true from what is not true." See his ITP, 31.

3. Theaet., 146A.

4. V. E. Beck, BPR, 330.

2. What is "Phenomenalism?"

Phenomenalism has been defined by Heinrich Schmidt as:

diejenige Richtung der Philosophie, welche das in der Erfahrung Gegebene als "Erscheinungen" (Phänomene) eines unerkennbaren "Dinges an sich" betrachtet (objektiver Ph.), oder als wirklich überhaupt nur bloße Bewusstseinsphänomene ("Erlebnisse," "Empfindungen") gelten lässt (extremer Ph.).⁵

In its extreme meaning, then, phenomenalism denies any and all knowledge and reality beyond phenomena, and thereby limits its knowledge to appearance.⁶ However, the term has also been applied to such systems as those of Kant,⁷ Comte,⁸ and Spencer,⁹ which limit knowledge to phenomena although the reality of a thing-in-itself is not denied.

The theory of phenomenalism has many philosophic similarities to positivism and naturalism.¹⁰ The Positive Philosophy was first formulated by Auguste Comte.¹¹ His doc-

5. Schmidt, PW, 317. For other definitions, see Dewey, Art.(1918), 288, and Wood, Art.(1945), 231.

6. The term "sensationalism" is usually applied to a subvariety of empiricism which literally limits knowledge to sensation. It was first associated with the philosophy of Thomas Hobbes. See Hobbes, LEV, 131.

7. See Jerusalem, ITP, 69. For Kant's use of the terms "phenomenon" and noumenon," see his KrV, B35, B295-315.

8. See Comte, PP, 28-29.

9. Spencer wrote of a "universal causal agent not to be known at all." CS, 41; also, 31.

10. "Realism," writes D. C. O'Grady, "is frequently though not necessarily associated with a materialistic metaphysic and with a scientific or empiristic attitude." In this sense, the following discussion also includes realism. See O'Grady, Art.(1945), 636.

11. Comte's famous "law" taught a cultural evolution of three stages: 1) the theological, in which natural events were explained by anthropomorphic beings; 2) the metaphysical, in which these beings became forces and essences; and 3) the positive or scientific. See Comte, PP, 25-30.

trine stated that simple description of sensory phenomena is the highest form of knowledge. Positivistic description is of the mathematical type, not psycho-analytic psychology; hence, mathematical science is the highest stage of human thought.¹² Consequently, as Professor Patrick has written:

Comte believed that the search for first causes, ultimate reality, and all such things, is wholly vain. The human mind must confine itself to actual facts, to phenomena, as we call them; that is, to things as they appear in our actual experience. It is useless to try to find out what lies back of phenomena, about things in themselves. Philosophy must limit itself to discovering the relationships between phenomena and their invariable modes of behavior.¹³

Likewise, naturalism has certain relationships to phenomenalism. Krikorian writes:

The naturalist turns away from these supernatural worlds. For him there is no supernatural, no transcendental world. Beyond nature there is [only] more nature.¹⁴

The world of nature, "the whole of reality"¹⁵ for the naturalist, is examined and known by scientific method.¹⁶ The naturalist no longer limits knowledge to literal appearance, as is indicated by such a concept as energy; but he does "make a philosophy out of a method which excludes all facts

12. Comte, PP, 25-30. Spencer's agnosticism, which limited knowledge to facts of matter and force, is very similar to positivism. See Spencer, FP, 40-57.

13. Patrick, ITP, 37.

14. Krikorian, Art.(1944), 243.

15. Ibid., 242.

16. Science has long been recognized as positivistic. But, as Burtt writes, "there is a change in the prevailing conception (1) of reality, (2) of causality, and (3) of the human mind." See his MFMS, 300, et passim, for a complete study of metaphysics and modern science.

except those accessible to our senses..."¹⁷

Thus phenomenalism, when used as a general term, is applicable to any philosophy which denies or rejects knowledge beyond appearance and, therefore, an ultimate or final knowledge. Indeed, this very denial is the source of similarity among phenomenologists, positivists, and naturalists;¹⁸ and it may be used as a criterion in attesting a phenomenistic philosophical system.

3. Phenomenalism in Greek Philosophy

Yet this explanation is not sufficient for the purpose of this study. The modern concept of phenomenism was not known in Greek philosophy, and the precise meaning of the similar concept in Greek thought must therefore be determined.¹⁹ As a Sophist doctrine, a theory of phenomenism had been formulated by Protagoras in his famous dictum:

Man is the measure of all things, of things that are that they are, and of things that are not that they are not.²⁰

This conclusion of Protagoras was maintained by the Sophists. Protagoras, born in Abdera in 480 B. C., had been instructed in his youth by Democritus, who first noticed him because of his proficiency in knotting. With

17. Brightman, NAV, 103. For a critical and more complete analysis of scientific method and sensation in naturalism, see *ibid.*, 102-106.

18. All naturalists cannot be included in this generalization. Many naturalistic philosophers, especially of the "new naturalism" school, are metaphysicians. See Sellars, RCA, 243, for a statement of metaphysics in "new naturalism."

19. The distinction between the phenomenal and noumenal worlds became a problem after Kant's initial distinction. See *supra* 2, n. 7.

20. Bakewell, SBAP, 67.

Democritus, Protagoras held the existence of the Many and rejected the One of the Eleatics; he accepted the theory that thought has its origin in sensation. From Heraclitus he accepted²¹ the doctrine of the "flux."²²

Protagoras differed sharply with Democritus' atomic theory, however, and consequently with his theory of reflection.²³ The rejection of Democritus' atoms ultimately led Protagoras to the belief that sensation is the source of knowledge;²⁴ and Protagoras' own theory of perception was largely responsible for his rejection of both these Democritean theories.²⁵

The Sophists openly recognized that this doctrine implied a relative knowledge: they were skeptical, and taught²⁶ the relativity of both knowledge and morals.²⁷ Ultimate knowledge of reality was declared unattainable; and when they turned to morals, they held that these too had only a contingent basis.²⁸ Thus the Sophists

21. The influence of Heraclitus on Protagoras is a debatable issue. See below, 15-16.

22. For a complete biography of Protagoras, see Lewes, HOP, I, 120-126.

23. See Aristotle, *De An.*, 405a, for a statement of Democritus' conception of the mind. His atomic theory is expressed in the statement, "Only the atoms and the void are real." Bakewell, SBAP, 60.

24. "The relativity of knowledge is a truism to us, but was a great psychological discovery in the fifth century before Christ. Of this discovery the first distinct assertion is contained in the thesis of Protagoras." Jowett (tr. and ed.), DP¹, IV, 258.

25. Protagoras' theory of perception is examined below, 12.

26. For a discussion of the Sophists as teachers, see Mackay (tr. and ed.), SP, 4-17.

27. The meaning of this relativity is discussed below, 12-14.

28. "For man there was no Eternal Right because there was no Eternal Truth..." Lewes, HOP, I, 125.

maintained the doctrine of Thought being identical with and limited to Sensation. Now this doctrine implies that everything is true relatively--every sensation is a true sensation; and as there is nothing but sensation, knowledge is inevitably fleeting and imperfect.²⁹

The Sophists were consistent skeptics;³⁰ it was they who first demonstrated that sense-knowledge leads only to skepticism.³¹ Thus it is evident that the Sophists, as well as the positivists of whom Professor Patrick writes, believed "that the search for first causes, ultimate reality, and all such things, is wholly vain."³² The Sophist, positivist, and naturalist are alike in their rejection of knowledge beyond phenomena and their skeptical attitude toward metaphysics.

The uniting link between the ancient Sophists and the modern naturalists and positivists is stronger than it might appear: F. C. S. Schiller, a modern pragmatist, has termed himself a disciple of Protagoras because the latter was the first philosopher to teach that one opinion can be better than another, though it cannot be truer.³³ There is -----

29. Lewes, HOP, I, 121. The meaning of this observation in ethics is discussed below, 12-13.

30. Two technical distinctions must be made here: 1) phenomenalism does not necessarily imply sensationalism, although Plato interpreted Protagoras' saying in this way; and 2) strictly, skepticism is the denial of the existence of any truth whatever. Nevertheless, the term is often used to mean that knowledge is human, i. e., it is always relative, never absolute. See Cushman, BHP, 69. Sophistic skepticism is discussed below, 11-14.

31. English philosophy from Locke to Hume again demonstrated this fact.

32. This generalization is not accurate: Prodicus, one of the Sophists, was not the skeptic that Protagoras and Gorgias were. See Zeller, OHGP, 83-85.

33. Schiller, HUM, xvii. For a fuller discussion of Schiller's thought, see below, 13-14.

no doubt but that these modern schools of thought represent a continuity--refined though it may be--with the ancient Sophists.

4. Phenomenalism as a Problem in Philosophy

To the ancient Greek speculative mind, the doctrine of phenomenalism was a disturbing element of thought. The temperament of the Greeks could not yet admit to a doctrine of "flux," and still less to the position that "knowledge is inevitably fleeting and imperfect."³⁴ "Being in love with the fixed, the secure, the immutable,"³⁵ the early Greeks, and especially Plato, longed for an epistemology which taught the security, attainability, and eternality of knowledge, and a method of distinguishing the true from the false.³⁶ "The chief interest of all is the quest for what is abiding in the flux of things."³⁷

Thus phenomenalism was as truly a problem in Greek philosophy as it is in modern philosophy. Indeed, the whole epistemological problem is of greatest importance in contemporary thought. Burt writes:

What are the problems whose correct treatment, it has generally been taken for granted, constitute [sic] the main business of metaphysical thinkers? Well, most conspicuous of these is the so-called problem of knowledge; the

34. Supra, 6. "The beginnings of sceptical doctrine with the Greek sophists owed their form largely to the crude and undeveloped condition of logical and metaphysical theory at that time," writes Bowne. See his TTK, 271-274, for a discussion of this issue.

35. A phrase from Larrabee, RK, 21.

36. Although the very existence of skepticism and Sophism in Greek thought demonstrates that these statements were not universally applicable, the main tenor of Greek thought is contained therein. See, e. g., Bergson's analysis of Greek philosophy in his CE, 348-349.

37. Burnet, EGP, 12.

main current of speculative inquiry from Descartes onward has been permeated by the conviction that investigation into the nature and possibility of knowledge forms a necessary preliminary to a successful attack upon other ultimate issues... The central place of epistemology in modern philosophy is no accident; it is a most natural corollary of something still more pervasive and significant, a conception of man himself, and especially of his relation to the world around him.³⁸

Likewise, skepticism, in any of its various forms, has been, and still is, an important problem in philosophy.

Bowne has written that:

In the form of philosophic scepticism this doubt [the validity of knowledge] has been an important factor in the history of thought.³⁹

Thus a study of the skeptical phenomenalism of Greek thought is of value both in understanding the philosophy of the ancient Greeks and in recognizing and judging the skepticism in certain schools of modern thought.

5. Bibliographical Note

The method of this thesis has been 1) to analyze Plato's and Aristotle's writings, and 2) to consult reference works for their interpretations of these two philosophers. Most of the standard studies of Plato's and Aristotle's theories of knowledge are listed in the bibliography.

The literature on Plato and Aristotle is so extensive that a complete list of secondary sources is almost impossible; this is also not necessary. Secondary sources used

38. Burt, MFMS, 1-2.

39. Bowne, TTK, 267.

This volume of essays is a collection of papers presented at the conference on the philosophy of science held at the University of California, San Diego, in 1975. The papers are arranged in three parts. The first part contains papers on the philosophy of science, the second part contains papers on the philosophy of language, and the third part contains papers on the philosophy of mind.

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The second part of the volume contains papers on the philosophy of language, and the third part contains papers on the philosophy of mind.

Philosophy of Science

The first part of the volume contains papers on the philosophy of science, and the second part contains papers on the philosophy of language.

The third part of the volume contains papers on the philosophy of mind, and the fourth part contains papers on the philosophy of language.

in this study have been selected for the accuracy and clarity of their presentations of the epistemological problem.

Jowett's translation of Plato's Dialogues (DP²) and McKeon (ed.), BWA, have been used as primary sources. The explanation of the standard abbreviations used in the footnotes of the text is given in the bibliography.

CHAPTER I

THE MEANING OF HOMO MENSURA OMNIUM

A study of Protagoras' doctrine¹ that "Man is the measure of all things" (homo mensura omnium) is necessary for the purpose of this thesis because Plato was not an altogether trustworthy interpreter of the doctrine. Jowett remarks:

There are two special difficulties which beset the student of the Theaetetus: (1) he is uncertain how far he can trust Plato's account of the theory of Protagoras; and he is also doubtful (2) how far, and in what part of the dialogue, Plato is expressing his own opinion.²

1. Evaluation of Homo Mensura Omnium

Socrates, despite his great opposition to the Sophist movement, nevertheless displayed great similarity with the Sophists. He was motivated by the same general doubt as they: he was a doubter. "Philosophy begins in wonder,"³ wrote Plato; and both the Sophists and he "wondered." And, much like them, because he had been "defeated in his endeavor to penetrate the world without, he turned his attention

1. Supra, 4. Because of the continual reference to this statement throughout the thesis, documentation of it is dropped below.

2. Jowett, (tr., and ed.), DP¹, IV, 234.

3. Theaet., 155D. For a discussion of the similarity between the Sophists and Socrates because of their questioning attitudes, see Pater, PAP, 99-103.

to the world within."4

The chief difference between Socrates and the Sophists lay in their attitudes toward the central truth of philosophy. The homo mensura at first glance might be considered Socratic, for Socrates did put the laws of conduct to the test of experience. But, as More points out, "this indeed would be the case, were it not for the utterly diverse meanings that may be attached to the word 'man'."5 Protagoras meant by 'man' such qualities as sensations and temperament, and thereby denied the law based on the single notion of Good which Socrates considered unchanging ("It is better for a man to be just than unjust"),6 and the test to which he applied ethical conceptions.

Socrates therefore attacked the Sophists for their denial of his basic premise. Sidgwick summarizes his attack thus:

The charge that Socrates brought against the sophists and his fellow-men generally may be viewed in two aspects. On one side it looks quite artless and simple; on the other it is seen to herald a revolution in scientific method, and to contain the germ of a metaphysical system. Simply stated, the charge was that they talked about justice, temperance, law, etc., and yet could not tell what these things were; the accounts of them which they gave when pressed were, as Socrates forced them to admit, inconsistent with their own judgments on particular instances of justice,

4. Lewes, HOP, I, 142-143.

5. More, PLA, 17.

6. The dialogues are full of references to justice as the human virtue. See, e. g., Rep., 335B.

legality, etc.⁷

There are four problems which arise in the comparison of Socrates and the Sophists. They are: 1) the role of universals in ethics; 2) Protagoras' view of universals; 3) the fundamental monism-dualism problem; and 4) the relation between truth and personality.

1) A universal is defined as "that term which can be applied throughout the universe."⁸ This implies that an ethical universal is that which is applicable to all men at all times under all conditions. Kant's categorical imperative is an example of an ethical universal.⁹

2) Protagoras did not hold such an ethical universal; indeed, he taught no universals.¹⁰ This was the logical result of his theory of perception;¹¹ between knowledge and an object are the senses and the mind; therefore, man can never know things exactly as they are, and the individual's own physical body determines what he will or will not know. Yet, because no individual can know an object, it follows that no one can refute the opinion of another: no individual has knowledge of the actual object.¹²

Thus in ethics, Protagoras' theory of perception led him to the view that "good" is not a universal in the sense

7. Sidgwick, OHE, 22-23. Thus there is a difference between Socrates' skepticism and that of the Sophists. Socrates held a type of "methodological skepticism" while the Sophists taught an "epistemological skepticism."

8. Feibleman, Art.(1945), 326.

9. See his KrV, B575.

10. Except the universality of homo mensura omnium.

11. See Bertocci, SAMP, 22, for a concise statement of this theory.

12. Such, at least, is Plato's interpretation. See below, 15-16, for a discussion of his accuracy. Taylor

that the good for one man will be good for another, or that even the same good will be good for the same man at different times. This means that "good" is not a universal, but a particular.

3) The struggle between the Platonic ethical universals and Protagoras' particulars has been identified by More with the struggle between dualism and monism, between knowledge and opinion, and just opinion. Plato agreed with Protagoras that man moves in a "world of shifting impressions," but rather than stopping in this world of opinion, Plato urged that there is also a world of knowledge in which man can attain certain information of the everlasting--in which there is a universal good for all men at all times.

4) G. E. Moore writes that:

Protagoras appears to have drawn the contradictory conclusion that all our beliefs may be not partially, but wholly untrue, as is implied in his stating his theory with regard to all things.¹³

The problem of the relation between truth and personality is apparent: if truth is not correspondence with reality because of the interference of the senses and mind, what then is truth?

The humanist Schiller has conceived truth on the basis of Protagorean particulars. Schiller rejected the correspondence criterion of truth because "Thought and Reality cannot

points out in this regard that "the view Plato ascribes to Protagoras is not 'subjectivism.' The theory is strictly realistic..." His thesis is metaphysical, and he is denying a "common environment." PMW, 326.

13. Moore, Art.(1918), 451.

not be got apart, and consequently the doctrine of their 'correspondence' has in the end no meaning."¹⁴ Coherence is rejected because "the pronouncement that truth is what fits in a system as therefore final would be ludicrously rash..."¹⁵ Schiller's conclusion is that "Truth is a form of value;"¹⁶ "anything may commend itself to anybody, as 'true,' nay, even as the truth, and there are no guarantees that any man's valuations will be consistent with any other man's, or even with his own at other times."¹⁷

Thus the Protagorean doctrine is identified with the view that truth is a value, and a value which cannot be proved true or false. As truth itself is a value which refers to no common factor in anybody's experience,¹⁸ and since the claims of ethics can be examined only with reference to this value, ethical universals necessarily melt away. Truth becomes a function of each situation and each personality.

Homo mensura omnium may now be characterized as: 1) the theory that reality cannot be known, i. e., that there can be only opinion, and no knowledge; 2) the belief that any kind of universal is meaningless;¹⁹ and 3) the theory that truth is no more than a value, and what is true consequently depends on the valuer. Such is the view against which Socrates argued.

14. Schiller, HUM, 46.

15. Ibid., 47. Finality is not the claim of coherence, however. See Brightman, ITP, 63-66.

16. Schiller, HUM, 54.

17. Ibid., 55.

18. The experience of truth as a value is not ordinarily denied (see Brightman, PR, 99; note the exceptions to, and the interpretation of, truth as a value discussed there). This statement implies that there is nothing in truth but value.

19. However, see supra, 12, n. 10.

2. Plato's Interpretation of Homo Mensura Omnium

Socrates identified Theaetetus' first definition of knowledge, "knowledge is perception,"²⁰ with Protagoras' theory. Although scholars have questioned the accuracy of this identification, it seems apparent that Protagoras did "regard knowledge as consisting in the immediate apprehension of things."²¹

If this is true, there is yet an ambiguity in the dictum. Did he mean that knowledge is relative to the human mind, or did he deny the existence of an external, objective criterion of truth,²² or is such a criterion in the human mind?

These questions must go unanswered. The evidence concerning the meaning which Protagoras really ascribed to his theory is all too meager.²³ Jowett concludes that:

Probably he had no intention either of denying or affirming an objective standard of truth. He did not consider whether man in the higher or man in the lower sense was a 'measure of all things.' Like other great thinkers, he was absorbed with one idea, and that idea was the absoluteness of perception.²⁴

Another important aspect of Protagoras' theory is the suspected influence of Heraclitus' "flux" on his thought. Fuller says that "these conclusions [of Protagoras] were enforced by, if not actually based upon the Heraclitean

20. Theaet., 151E.

21. Watson, OP, 305.

22. See Jowett (tr. and ed.), DP¹, IV, 258, for an investigation of these problems. Schiller's view indicates that Protagoras did deny this criterion. Supra, 14.

23. With the exception of a few fragments, Protagoras' book, On Truth, has been lost.

24. Jowett (tr. and ed.), DP¹, IV, 258.

teaching."²⁵ Jowett, however, claims "that the connection between the doctrines of Protagoras and Heraclitus was not generally recognized in Greece, but was really discovered or invented by Plato."²⁶ Ueberweg concludes, "It remains uncertain how far the manner in which Protagoras established this proposition agreed with that which we find reported in Plato's Theaetetus."²⁷

Thus it becomes evident that Plato's interpretation of homo mensura omnium is not necessarily the most accurate that could be made. It must therefore be remembered with Jowett that "we are criticizing the Protagoras of Plato, and not attempting to draw a precise line between his real sentiments and those which Plato has attributed to him."²⁸

25. Fuller, HOP, 105.

26. Jowett (tr. and ed.), DP¹, IV, 231. Pater indicates that there is an attempt in Heraclitus "to reduce the world of chaotic mutation to cosmos," despite Plato's attack on the doctrine for the lack of such an effort. But, Pater observes, Plato "was no scholar of the Sophists as he understood them, but is writing of what he really knows." PAP, 17, 123.

27. Ueberweg, HOP, 75.

28. Jowett (tr. and ed.), DP¹, IV, 231.

CHAPTER II

PLATO'S CRITIQUE OF PHENOMENALISM

Plato's criticisms of phenomenalism¹ are collected and analyzed in the Theaetetus. In this dialogue he was attempting to gather up all the skeptical tendencies of his day and compare them. The theory that "knowledge is sensible perception" is, as Jowett writes, "the antithesis of that which derives knowledge from the mind (Theaet., 185) or which assumes the existence of ideas independent of the mind (Par., 255)."² Although Plato did not offer a constructive theory of knowledge in this dialogue, he did subject his contemporaries' theories to severe criticism from the point of view of his own epistemology.³

1. "Knowledge is Perception"

Theaetetus had been complimented by Theodorus for his keen intellect and wisdom when Socrates asked the question whose answer became the goal of the dialogue. In reply to the question, "What is knowledge?", Theaetetus answered that he considered the sciences to be knowledge.⁴ Socrates

1. Throughout the remainder of this study, the term phenomenalism is used without further qualification. For the meaning of the term as used here and below, see *supra*, 10-14.

2. Jowett (tr. and ed.), DP¹, IV, 234.

3. Plato's theory of knowledge is discussed below, 28-40.

4. Theaet., 146C.

rejected this statement, however, because it is an enumeration, not a definition.⁵

Theaetetus' first true definition was, "knowledge is perception."⁶ Socrates immediately identified this definition with Protagoras' saying, homo mensura omnium.⁷ Following this identification, Socrates proceeded: 1) to draw out the implications of the theory, and 2) to interpret the theory in view of the Heraclitean "flux," upon which he thought Protagoras' theory rested.⁸

1. The Confusion of Sensation with Opinion and Knowledge

The first implication of the theory that "knowledge is perception" is that "things are to you such as they appear to you, and to me such as they appear to me, and that you and I are men;"⁹ in other words, things actually are as they appear to each man. Socrates' inference depended on his theory of sensation: sensation is the result of a motion arising from the eye which meets the color of an object.¹⁰ The properties of the motion from the eye depend on the percipient, and differ from one individual to another; indeed, they may differ in the same individual from time to time.

5. Theaet., 146D.

6. Ibid., 148E.

7. Ibid., 152A. A similar identification of this definition of knowledge and Protagoras' dictum is found in Crat., 152A.

8. For a discussion of Plato's accuracy in interpreting Protagoras' "hidden meaning," see *supra*, 15-16.

9. Theaet., 152A.

10. Ibid., 154A. The theory of the origin of the sensible faculties is found in Tim., 42A-43. Cf. Protagoras' theory of sensation, *supra*, 12.

Therefore, different individuals see the same object differently,¹¹ and nothing perceived by different men or by the same man at different times is the same.¹²

The fundamental principles involved in this analysis have been summarized by Taylor:

Thus the issue between realism and "absolute phenomenalism" is rightly made to be just whether two men, each using his own private senses, can perceive an object which is "common" to both of them.¹³

But, granting the principles of "absolute phenomenalism," Socrates discovered certain contradictions arising from the relations of numbers:

Here are six dice, which are more by a half when compared with four, and fewer by a half than twelve--there are more and also fewer.¹⁴

The cause of this difficulty, Socrates maintained, is that "knowledge is perception" violates the laws of thought.

They are:

first, that nothing can become greater or less, either in number or magnitude, while remaining equal to itself... Secondly, that without addition or subtraction there is no increase or diminution of anything, but only equality... Thirdly, that what was not before cannot be afterwards without becoming and having become.¹⁵

Socrates' argument here has called "attention to the, so far neglected, distinction between sensation and thought,"¹⁶ and he has attempted to present certain contradictions which arise when this distinction is neglected. Wild has

11. Theaet., 154A.

12. Ibid., 154B.

13. Taylor, PMW, 332, n. 1.

14. Theaet., 154C.

15. Ibid., 155A.

16. Taylor, PMW, 338.

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written that:

When sensation is correctly understood, the assertion of sensory infallibility is a harmless truth. But when sensation is confused with "judgment" or "opinion," a radically different faculty, the assertion of "sensory" infallibility breeds those sensational paradoxes which have made Protagoras and many of his empirist followers famous.¹⁷

ii. Sensation and the "Flux"

The Heracliteans, Socrates held, taught that all things are in motion.¹⁸ This motion is of two kinds, active and passive.¹⁹ Active motion, which is the "swifter" kind, is locomotion; passive, the "slower" motion, is motion "in the same place."²⁰ Applying this theory to vision, Socrates inferred that all things are becoming relative to something else: "there is no self-existent thing, but everything is becoming and in relation; and being must be altogether abolished..."²¹ All things are becoming and in relation, including classes, species, and genera. Thus, concluded Socrates, "my perception is true to me, being inseparable from my own being; and, as Protagoras says, to myself I am judge of what is and what is not to me."²²

17. Wild, PTM, 247.

18. The following discussion of Heraclitus' theory is Platonic, and does not interpret Heraclitus accurately. The theory of the "flux" contained two premises: 1) all things are in motion, but 2) law controls the motion. See Bertocci, SAMP, 10, for this presentation of Heraclitus' views. Plato's error occurred in his interpretation of the Logos.

19. Theaet., 156A. See Laws X, 893-894, for a list of ten kinds of motion, and Tim., 36D, 38C, and 43D, for a list of six types of motion.

20. Theaet., 156D.

21. Ibid., 157B.

22. Ibid., 160D. See Pater, PAP, 5-50 for a complete statement of Plato's historical relations with the doctrines of rest and motion.

The first arguments which Socrates advanced against the theory that knowledge is perception of the world of "flux" are mainly reductio ad absurdum. Why, he asked, did not Protagoras make a pig or a dog-faced baboon the measure of all things, for they too have sensation?²³ Secondly, he wondered why Protagoras was considered wise and was highly paid for his instruction, for each man is a measure of his own wisdom.²⁴ Thirdly, Socrates considered memory: on Protagoras' principle, what is remembered is not known, for when one is remembering, he is not seeing, and, therefore, not knowing.²⁵ Fourthly, Socrates argued that a man can know and not know at the same time; for if he sees with one eye covered, he knows with one eye and not with the other.²⁶

Socrates, however, was not satisfied with this type of argument, and proposed a new start. He reviewed Protagoras' arguments and concluded for Protagoras: "What I maintain is, that sensations are relative and individual, that consequently what appears is."²⁷ Having redefined the issues, Socrates proceeded with the refutation.

iii. The Confusion of Knowledge with Sensation

The fundamental issue in Socrates' argument was: given the Protagorean thesis, what becomes of mind? On the basis of Protagoras' (and Heraclitus') premises as he interpreted them, Socrates made three deductions: 1) in sensation, the

23. Theaet., 161B.

24. Ibid., 161E.

25. Ibid., 164A.

26. Ibid., 165B.

27. Ibid., 166D.

percipient and the object lose their identity: they merely come together to "generate sensations" and have no "absolute existence."²⁸ 2) Since each quality moves in place and changes at the same time, one name is no more appropriate than another.²⁹ 3) Seeing and not-seeing are identical, and therefore knowledge is both perception and not perception.³⁰

These conclusions, Socrates argued, are not correct, for the mind has become a meaningless and non-existent thing. Therefore, he made four observations on sensation which became fundamental in his own epistemology: 1) sensible objects are perceived with the mind through the senses;³¹ 2) general notions are perceived with the mind only, without the help of the senses;³² 3) the senses perceive objects of sense, but only the mind can compare them;³³ and 4) sensation is given at birth, but truth and being are acquired only by reflection later on.³⁴

The chief argument against Protagoras' theory is that it denies the possibility that one man can know more than

28. Theaet., 182A.

29. Ibid., 182D. A fuller exposition of the sophistic view of names is found in Crat., 384-387.

30. Theaet., 183A. The principle of rest is of great importance for Plato; indeed, without rest, he held that mind could not exist. Cf. Soph., 249C.

31. Theaet., 184E. A detailed study of the mechanisms of sense perception is given in Tim., 66.

32. Theaet., 185C. The attainment of true being, a fundamental principle in Plato's thought, is gained only by the mind, without the aid of the senses. The senses can be a hinderance which would prevent the soul from attaining true being. Phaedo, 65D-66A.

33. Theaet., 186B. Cf. Protag., 356D.

34. Theaet., 186D. Plato thought that reflection is aroused by the contradictions of sense. Rep. VII, 523B.

another.³⁵ Thus, Protagoras acknowledged the truth of his adversaries and denied the truth of his own doctrine.³⁶ Socrates did make a concession, however: Protagoras' position is true in respect to sensible things.³⁷ Yet Protagoras did not limit his theory to sensible things alone: he acknowledged the wisdom of some men in politics.³⁸

Socrates thought that this refutation was complete because he had established the existence of something in the knowing process which is above sensation.³⁹ "Hence it follows that 'knowledge' is not to be sought for in the affections of our sensibility but in the mind's reflection upon them."⁴⁰

2. "Knowledge is True Opinion"

1. The Confusion of Knowledge with Opinion

Theaetetus' second definition was that "knowledge is true opinion."⁴¹ But false opinion is impossible 1) in the sphere of knowledge, for things are either known or not known;⁴² and 2) in the sphere of being, because it is impossible when seeing or hearing not to see or hear some

35. Theaet., 170C. Cf. Crat., 386D. Thus the implication of Taylor's statement is realized. *Supra*, 19.

36. Theaet., 171B. Cf. Euthyd., 286.

37. Theaet., 171B. It is apparent that epistemology is to a large extent interdependent on metaphysics. The implication of this concession is metaphysical: the Sophists held one world of sensible objects; Plato taught the two realms of objects and Ideas. See *supra*, 13.

38. Theaet., 172A.

39. These arguments would also have been used by Plato against Hume. See Hume, *ECHU*, 596-607, for arguments similar those of Protagoras. See also Kant, *KrV*, B5.

40. Taylor, *PMW*, 339.

41. Theaet., 187B.

42. Ibid., 187E-188A.

existing thing.⁴³ To think what is not is not to think,⁴⁴ and falsity is not one real object thought to be some other real object.⁴⁵

A way out of this difficulty was suggested by Theaetetus: one may know Socrates, and yet mistake him for another.⁴⁶ Socrates then compared memory to a wax tablet; each man has different qualities of wax.⁴⁷ Thus error arises in confusing the image on the wax with the sensed object. Yet there are still four cases in which error is impossible: 1) between two things not perceived by sense; 2) between two things when one has a sensible impression of one or both or neither of them; 3) between two things, both of which are known and perceived, and of which the impression coincides with sense; and 4) between two things which both or one only are known and perceived and have an impression corresponding to sense.⁴⁸

Socrates concluded that false opinion is the erroneous combination of sensation and thought,⁴⁹ and the kinds and degrees of knowledge individuals possess are due to the qualities of the wax.⁵⁰ Yet upon examination, this conclusion must be rejected: error occurs in thought also.⁵¹

43. Theaet., 188D. Cf. Soph., 240-241. Wild points out that the denial of this statement has serious consequences: "it may lead us to the erroneous conclusion that certain sensations are somehow false." PTM, 249.

44. Theaet., 189B.

45. Ibid., 189C. The observation that error does not exist in sensation or knowledge, but only in opinion, is important for Plato's theory of knowledge. See below, 39-40.

46. Theaet., 191B.

47. Ibid., 191E.

48. Ibid., 192A-E.

49. Ibid., 193C.

50. Ibid., 194D.

51. Ibid., 195D.

Socrates was arguing in this analysis for essentially the same thing that he argued for previously:⁵² men have minds whose object is being. The object of opinion is not being; and unlike sensation, it is "not merely 'had' as a feeling. It is 'maintained' against other possibilities. It is not an experience but a theory."⁵³ Knowledge and opinion have different objects, and different faculties are used to realize these objects. Neither faculty can be "reduced" to the other.

ii. The Objects of Knowledge

Socrates next analyzed the knowing process. "To know" is not "to have" but "to possess" knowledge.⁵⁴ To illustrate his meaning, Socrates constructed the simile of the aviary.

The possession of knowledge involves three stages:

1) the original capture, 2) the detention for use, and 3) the second capture for use.⁵⁵ In other words, knowledge involves 1) acquisition, 2) latent possession, and 3) conscious possession and use.⁵⁶ False opinion therefore results from catching the wrong bird.⁵⁷ But how, asked Socrates, can a man, having knowledge, mistake it for ignorance?⁵⁸ A partial solution was offered by having birds of ignorance,⁵⁹ but this leads to the same difficulty: how can a man take a form of ignorance for knowledge?⁶⁰

52. Supra, 23. 55. Ibid., 197E. 58. Ibid., 199C.
 53. Wild, PTM, 251. 56. Ibid., 198E. 59. Ibid., 200A.
 54. Theaet., 197B. 57. Ibid., 199B. 60. Ibid., 200C.

The cause of this difficulty is, as Wild writes, that:

Theaetetus makes the mistake of regarding knowledge as a set of isolated bits which are simply heaped together as we come to know more and more. Hence we can only interpret error as an actual "bit" of ignorance...⁶¹

Socrates concluded that they were seeking false opinion before knowledge; rather, they should seek knowledge before false opinion.⁶²

iii, Knowledge as Opinion with Knowledge

Lastly, Theaetetus defined knowledge as true opinion accompanied by a reason.⁶³ In other words, as Socrates noted, knowledge is of the composite.⁶⁴ But knowledge is something over and above the parts.⁶⁵ Yet, this definition implies that the whole differs from the all which, as Socrates demonstrated, is absurd.⁶⁶

Socrates made a second interpretation of Theaetetus' definition: knowledge is right opinion with rational explanation. Three suggestions were offered to clarify the word "explanation:" 1) the reflection of thought is speech (but this is not peculiar to those who know);⁶⁷ 2) the enumeration of the parts of a thing (but there may be enumeration of parts without knowledge);⁶⁸ 3) true opinion about a thing with the addition of a mark or sign of dif-

61. Wild, PTM, 264.

62. Theaet., 200D.

63. Ibid., 201D.

64. Ibid., 203BC. The discussion of the theory of analysis which this definition involves is

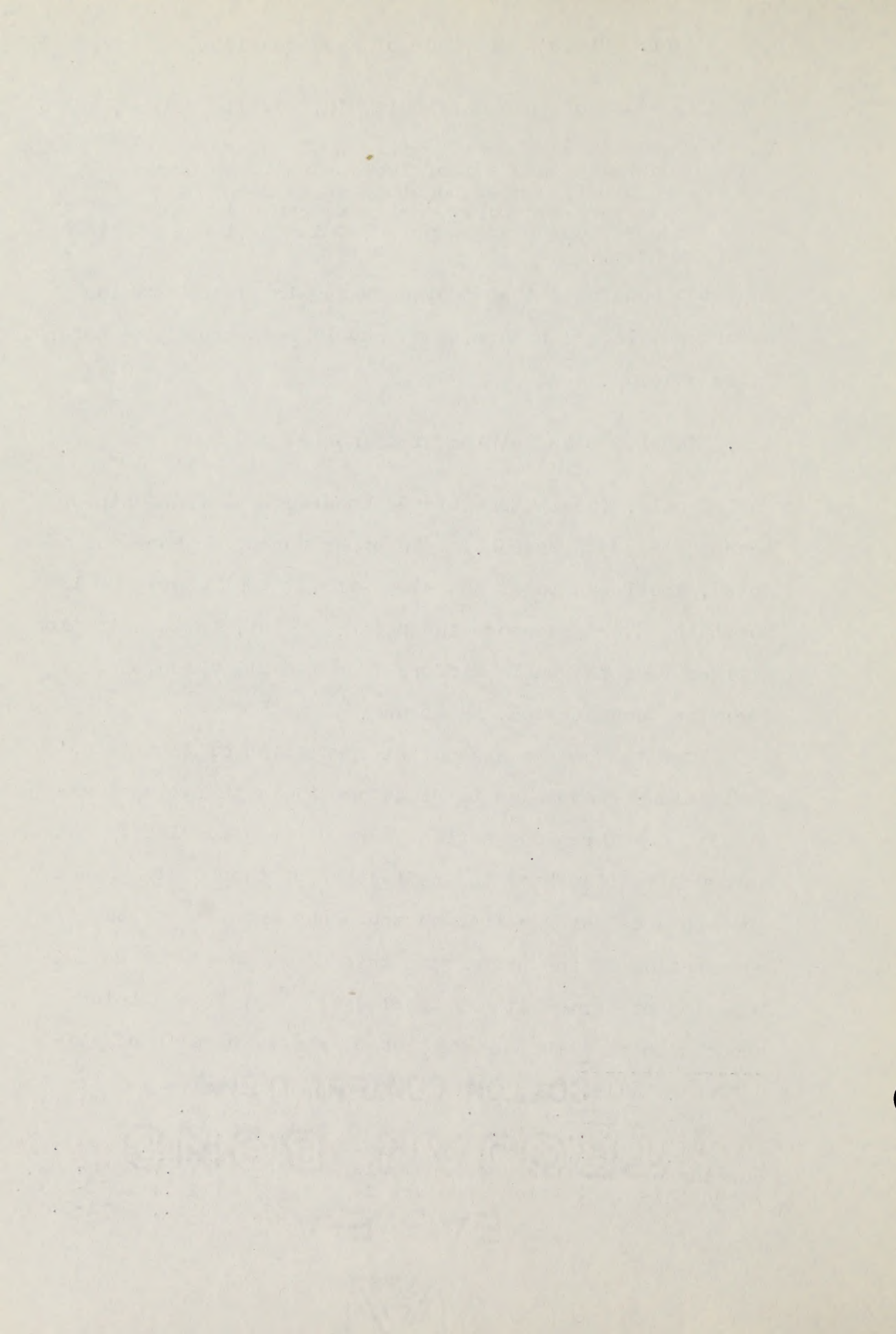
probably directed at Antisthenes. See Field, PHC, 160.

65. Theaet., 204A.

66. Ibid., 204B-206.

67. Ibid., 206E-207A.

68. Ibid., 207A-C.



ference (but right opinion already involves a knowledge of difference).⁶⁹ Furthermore, this definition means that knowledge is knowledge of difference; and it is incorrect to include in a definition the word being defined.⁷⁰

3. Summary of the Argument

Plato offered no constructive theory of knowledge in the Theaetetus; yet the confusion of knowledge with sensation and opinion in the definitions advanced by Theaetetus, and Socrates' exposures of this confusion, has brought out two fundamental principles of Platonic epistemology: 1) the realm of knowledge is separate and distinct from either sensation or opinion; and 2) the mind is a distinct and fundamental reality which is not reducible to something else, and which alone has true knowledge and being as its object. An examination of Plato's epistemology demonstrates the use he made of these two principles.

69. Theaet., 208D-209B.
70. Ibid., 201A.

C H A P T E R I I I

PLATO'S THEORY OF KNOWLEDGE

Plato's theory of knowledge is based on the fundamental distinction between appearance and reality. Pater observed that this distinction, as many other of his important philosophic doctrines, was not original; rather, it was the result of the influence of the Eleatics, especially Parmenides, who "became a sort of inspired voice" for Plato.¹

There are fragments from Parmenides' poem, "On Truth," which indicate this basic distinction:

Men have set up for themselves, believing as real
Birth and decay, becoming and ceasing...
But...the uttermost limit of Being is ended and
perfect.²

In Plato's thought, this metaphysical distinction became an epistemological division³ in his separation of doxa and episteme. This theory is best formulated in his "dialectic ladder."

1. The Dialectic Ladder

To visualize the meaning of his theory, Socrates⁴ asked

1. Pater, PAP, 32.

2. In Bakewell, SBAP, 17.

3. The term "epistemological dualism" used by More, PLA, 108, is avoided because the term has a technical meaning different from the meaning intended here. See Brightman, ITP, 78-79, for the technical meaning.

4. Rep., 510.

his listeners to imagine a line which is divided into two parts. These divisions represent the two spheres of knowledge and opinion. The two segments are again divided into the two realms of "shadows" and "reflections." The realm of knowledge is also subdivided into the lower, "understanding," which "uses the figures given by the former division as images," but, "instead of going upwards to a principle descends to the other end." And finally, the highest division, "dialectic," is that in which the soul "passes out of hypotheses and goes up to a principle which is above hypotheses." These four stages relate to the faculties of perception, faith, understanding, and reason.⁵

1) The lowest step on the ladder is that of mere appearance, of sensation, or conjecture. It is placed at the bottom because reason is least used in conjecture,⁶ and it consists of the pure, uninterpreted apprehension of things.

2) The second step is that of belief (pistis). The sensations given in conjecture are the data of belief, but pistis adds to these simple sensations additional information about the objects sensed.⁷ Demos writes:

The defining characteristic of pistis and, along with it, of all opinion as distinguished from reason, is that the former does not apprehend forms in their purity, it does not abstract, and consequently is vague.⁸

3) From opinion Socrates rises to noesis, or thought.

5. Rep., 511E.

6. Cf. the story of the den, ibid., 515. Truth for the prisoners is nothing but the shadows of images, which they see, but do not reflect upon.

7. For a discussion of phantasia, see below, 33.

8. Demos, POP, 273.

The first step in thought is dianoia, which is essentially a change from particulars to universals. Socrates noted that this is the method of the sciences⁹ and mathematics. Dianoia proceeds on the basis of hypotheses, and by deduction arrives at a conclusion.¹⁰

4) The essential difference between dianoia and episteme is stated by Socrates: episteme is that sort of knowledge

which reason herself attains by the power of dialectic, using the hypotheses not as first principles, but only as hypotheses--that is to say, as steps and points of departure into a world which is above hypotheses, in order that she may soar beyond them to the first principle of the whole...¹¹

This "first principle" is the Idea of the Good, which is the philosopher's goal.¹²

The basis of Plato's entire theory of knowledge is this epistemological division. It remains to examine the three realms of sensation, opinion, and knowledge.

2. The Realm of Sensation

Although Plato pictured four stages or steps in his

9. Socrates considered the only true science to be dialectic, and hence the term as used here has a corrupted meaning. Cf. Rep., 510E-511A.

10. Ibid., 510D.

11. Ibid., 511C.

12. Plato said that the story of the den is a representation of these four stages, and also the philosopher's quest up the ladder to an apprehension of the Good. Ibid., 517B. However, Robinson holds: 1) that conjecture of the line must mean something different from the prisoners, for the latter are more than mere vision; and 2) conjecture is not trying to apprehend originals through images, but of confusing images with originals. See his PED, 192-213. Note that he also questions the interpretation that Plato did mean the cave and the line to be similar.

dialectic ladder, there are only three realms, sensation, opinion, and knowledge, to analyze. The reason for this is, as Wild has written, that

since the formal structure of things and the source of this structure are both apprehended by the same faculty of rational apprehension..., we have to deal only with three major faculties, not four: sensation..., the object of which is the seeming thing; opinion..., the object of which is the changing, material thing; and knowledge..., the object of which is being, and its stable formal structure.¹³

Sensation, one element of doxa, apprehends the given.¹⁴ It is useful only as it serves as a reference for reason:¹⁵ "God invented and gave us sight to the end that we might behold the courses of our intelligence which are akin to them..."¹⁶ Sensations are necessary,¹⁷ and are natural to men, "but their reflections on the being and use of them are slowly and hardly gained, if they are ever gained, by education and long experience."¹⁸

Sensations as sensations are infallible: if not, one is faced with the insurmountable difficulties of absolute phenomenalism.¹⁹ Yet there is more to opinion and knowledge than sensation: mere sensations are a maze of confusing impressions.²⁰

13. Wild, PTM, 242.

14. For a discussion of the mechanisms of sensation, see *supra*, 18-19, especially n. 10. Note that the procedure is a passive one. Theaet., 179C.

15. But even this use is important: "from this source we derive philosophy." Tim., 47B.

16. *Ibid.*, 47B.

17. Rep., 506E.

18. Theaet., 182E.

19. See *supra*, 19-20. Cf. Soph., 260D.

20. See Theaet., 182E.

3. The Realm of Opinion

Plato's criticisms of phenomenalism and his view of the realm of sensation reveal the following contrasts between sensation and opinion: 1) opinion is fallible, but if it is confused with infallible sensation, it will be impossible for any opinion to be false, and all men--and even animals--will be unrestrictedly infallible;²¹ 2) the object of opinion includes more than the stream of sensations which proceed in relation to the sense organs and the object; and 3) opinion differs from sensation in its independence of any single sense organ.

Opinion for Plato "is the combination of knowledge and sense, not the simple apprehension of a single object."²² Or, more specifically, the realm of opinion is, stated positively, the

integration of sensible data into enduring objects; described negatively, it is the lack of abstract concepts, of proof, of systematization of belief.²³

Opinion is the level 1) which has an empirical basis because it is based on sensation, and 2) on which one has a conviction that something is true without knowing why it is true.²⁴ It includes pistis and dianoia, and contains two steps or aspects, phantasia and judgment.

21. Cf. Theaet., 195C. See also supra, 18-19.

22. Wild, PTM, 262.

23. Demos, POP, 274.

24. "Why" is an important word in Plato's thought. It is answered by the synoptic function of dialectic. See below, 38-39. Having truth without the reasons for truth is always inferior to the whole truth in Plato. Cf. Rep., 506D.

1) The term phantasia was used by Plato to denote the aspect of doxa which is mainly on the level of pistis.²⁵ Phantasia consists of interpreting sense-data in terms of the categories. In the Theaetetus, Plato lists as categories being and not-being, likeness and unlikeness, sameness and difference, unity and numbers, and goodness and beauty.²⁶

Phantasia is empirical only because it is based on sensation. Its value as knowledge is very slight, however, for it gives little or no aid in the search of the mind for true being.²⁷

2) Judgment is the second factor of opinion, and is especially the function of dianoia. Plato held that "judgment arises in us from sensation and memory."²⁸ It consists in the development and comparison of concepts, and thus is the hypothetical method used in the sciences and mathematics. Because it is a hypothetical method, it is subject to error.²⁹

3) The sciences proceed on the basis of unproven hypotheses, treating these hypotheses as first principles. But reasoning by hypothesis is vague reasoning in Plato's

25. Soph., 264B. Plato defined phantasia as "the combination of sensation and opinion." Ibid., 264C. His use of "opinion" here undoubtedly referred to pistis, however, and not to dianoia.

26. Theaet., 185E-186A. See Tim., 37-38A, for a slightly different listing of these "common notions."

27. Cf. Phaedo, 79CD. In the third period of Plato's development, there was an increasing emphasis on the value of experience. See below, 38.

28. Phil., 38C. See ibid., 38-39, for the importance and role of memory in doxa and episteme.

29. In Plato's view, doxa is the only realm in which error can occur. Cf. below, 39-40.

philosophy, although he did treat hypotheses in great detail.³⁰

The dialogue Parmenides gives an exposition of one type of hypothesis-reasoning: one may construct a pattern of consistent propositions of which the initial premises are contradictories.³¹ These hypotheses are then tested: 1) by attempting to reduce them to absurdity;³² 2) by their conformity to the initial general assumptions;³³ or 3) by comparing the pattern with empirical data.³⁴ Yet the method of scientific hypothesis does not lead to the certainty for which Plato was searching;³⁵ and the sciences can never become the object of episteme, for they are in the world of sense, not knowledge, and in time, not eternity.³⁶

4) Mathematics has a unique position in Plato's epistemology.³⁷ Plato spoke highly of mathematics, even calling it a necessary prerequisite for dialectic.³⁸ Yet he had little use for mathematicians: he never met a mathematician who could reason.³⁹

However, the uniqueness of mathematics lies in the fact

30. See Demos, POP, 282-289, and Robinson, PED, 97-191, for expositions of this point, as well as for the references there.

31. Par., 136C.

32. Ibid., 128A.

33. Ibid., 136A.

34. Ibid., 136B.

35. Robinson doubts that Plato ever did hold the complete attainment of absolute knowledge as is often ascribed to his methodology. PED, 111-112. Yet Plato was searching for a surer method than that of the sciences.

36. Phil., 59A. Cf. Lutoslawski, OGPL, 466.

37. For treatments of Plato's theory of mathematics, see Demos, POP, 285-289; Robinson, PED, 158-162; Zeller, OHGP, 129-131; and Wild, PTM, 199-200.

38. Rep., 526A.

39. Ibid., 531E.

that it takes a middle position between the world of sense and reality. The empirical figures of mathematics⁴⁰ belong to the world of sense; yet the forms of the figures are like the Ideas in being fixed and eternal. Therefore, Plato held that in theoretical mathematics, men dream of being although they have not yet seen it.⁴¹

The realm of opinion may now be characterized as the realm: 1) which has its object in the sensible, contingent world, as opposed to the realm of Ideas; 2) in which one proceeds hypothetically, and is therefore liable to error; and 3) which contains science and mathematics, although mathematics is unique in that it lies between the world of sense and reality.

4. The Realm of Knowledge

Opinion, said Plato, is knowledge of the sensible world.⁴² Had he been contented to stop here, he undoubtedly would not have quarreled with the Sophists in the Theaetetus. But Plato did not stop here: there is another world of unchanging, eternal Ideas which is the goal of philosophy and the realm of truth.

i. The Development of Plato's Theory of Episteme

The discussions of the realms of sensation and opinion have been made without regard to the growth and development

40. Mathematics in Plato's time was essentially geometry.

41. Rep. VII, 533C. For the distinction between theoretical and applied mathematics, see ibid., VII, 525D.

42. Ibid., VI, 509E.

of Plato's thought. Yet in a survey of the realm of knowledge, it is necessary to consider the developmental aspect of his philosophy in order to comprehend its epistemological doctrine fully.⁴³

Following Lutoslawski's classification⁴⁴ of the dialogues, there are three general periods in Plato's development: 1) the early period, 2) the middle or critical period, and 3) later Platonism. Within these periods, Plato's episteme took three forms: 1) the psychological or a priori, 2) the intuitive, and 3) the synoptic.

1) The Meno, a dialogue of the first period, taught a type of psychological, a priori knowledge. Plato had not reached the sharp distinction between opinion and knowledge of his later periods: "he who has true opinion about that which the other knows...will be just as good a guide if he thinks the truth, as he who knows the truth."⁴⁵ Again, "then right opinion is not less useful than knowledge."⁴⁶ Nevertheless, Socrates was careful to make a delineation between opinion and knowledge in spite of these statements.

The psychological knowledge of Plato's early period was based on two premises: 1) the theory of reminiscence, and 2) the axiom of the unity of the world.⁴⁷ True opinion

43. An important problem for the complete understanding of Plato's philosophy, his theory of logic, is omitted from this discussion because it belongs to a separate study. For a complete analysis of Plato's logic, see Lutoslawski, OGPL.

44. See *ibid.*, 162-183.

45. *Meno*, 97B.

46. *Ibid.*, 97C.

47. *Ibid.*, 81A-86E.

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is distinguished from knowledge as a different power, parallel to the distinction between appearance and reality; for a man's soul had knowledge of being before it was united with the body. Lutoslawski concludes:

the fact of a a priori knowledge proclaimed by Plato in the Meno was for him a psychological fact, the difference between the state of mind of one who knows and knows reasons of his knowledge, and that of one who believes, and does not care to find out why he believes.⁴⁸

2) In the Symposium and the Phaedo, Plato turned toward an intuitive type of knowledge. He recommended his readers to acquire a superior faculty of intellectual wisdom by exercise in generalization.⁴⁹ His theory of recollection in the Phaedo can lead to only one observation:

the logical consequence of this doctrine was the power of reason to acquire all truth accessible to mankind by pure intuition, by contemplative meditation without or almost without external experience.⁵⁰

It is in the Republic, however, that intuition is most important. The knowledge gained by intuition is infallible;⁵¹ and is no longer as in the Phaedo based upon an ultimate hypothesis, but upon a principle which is above all doubt.⁵² The knowledge of this principle is not an inference, but an intuition; and Plato often used metaphorical expressions

48. Lutoslawski, OGPL, 219. Cf. Gomperz, GT, III, 6. Demos concludes that Plato's entire theory of knowledge is summarized in the affirmation of a a priori knowledge; he compares Plato's method to Descartes' Universal Mathematics and Spinoza's Ethica more geometrico demonstrata. POP, 294-297. This interpretation, however, does not take account of the development in Plato's thought.

49. Symp., 210A. See Gomperz, GT, III, 391, for a statement of the mysticism in this dialogue.

50. Lutoslawski, OGPL, 258. See Phaedo, 83A.

51. Rep. V, 477E.

52. Ibid., VI, 510B.

is the only one which is not a mere statement of fact, but which is a statement of opinion. It is the only one which is not a mere statement of fact, but which is a statement of opinion. It is the only one which is not a mere statement of fact, but which is a statement of opinion.

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taken from the senses of sight and touch to denote the immediate character of this knowledge.⁵³

3) In the reconstruction period of Plato's thought, knowledge ceases to be pure intuition, and becomes the product of thought as a co-ordinating agency, with analysis and synthesis as the two powerful means of inquiry.⁵⁴ The Ideas remain the realm of being and the objects of knowledge, but they have lost their objective, transcendental existence;⁵⁵ and the mind has become, along with movement, the explanation of everything.⁵⁶ There is also an increasing recognition of the value of experience,⁵⁷ and the Idea of the Good is to be found in being, beauty, and truth.⁵⁸ Chroust summarized this period in Plato's development thus:

The knowledge of ideas consists of rational judgments organized into a coherent body. It is based upon the experience of value and worth, rational intuition, and the apprehension of self-evident propositions and their rationally cogent implications.⁵⁹

ii. The Characteristics of Episteme

The relation between knowledge and opinion in Plato resulted from the observation that:

That which is apprehended by intelligence and reason is always in the same state, but that

53. Cf. Rep. VI, 511AB; VI, 518C; and VI, 533DE.

54. See Soph., 249A-250D, and Phil., 28E-31D.

55. Lutoslawski writes: "The old conception of substantial ideas is criticised in the Parmenides in a manner that may suggest a doubt whether it had ever been maintained by Plato in the crude form admitted by his interpreters." OGPL, 522-523.

56. Cf. Soph., 248C-250E, and Laws X, 893B-895E.

57. Soph., 234D, and Laws VI, 769D; X, 888A.

58. Phil., 20E.

59. Chroust, Art.(1947), 414.

which is conceived by opinion with the help of sensation and without reason, is always in a process of becoming and perishing and never really is.⁶⁰

Although Plato's view of the realm of knowledge underwent these changes, there are nevertheless certain characteristics of episteme which are relatively stable. The distinguishing feature of episteme is that it substitutes the synoptic view for the analysis of the sciences. Its method is dialectic, and it is demonstrative and abstract knowledge.

Dialectic destroys hypotheses, but this destruction is not all derogatory: dialectic uses hypotheses as "points of departure" in approaching truth.⁶¹ Dialectic is the method of the philosopher: it is a process of accepting and rejecting hypotheses until the most synoptic view is found.⁶² It reaches the realm of truth because it attains true being. Therefore, there can be no error in episteme (as there is no error in sensation): a man cannot mistake knowledge for ignorance.⁶³ Error is possible only in the realm of opinion.

5. The Final Rejection of Phenomenalism

Plato's analysis of homo mensura omnium and his theory of knowledge reveal five refutations of the Protagorean phenomenalism:

- 1) Sensation and knowledge in Plato's thought are

60. Tim., 28A.

61. Cf. Rep. VII, 533D. Hence, dialectic is the "coping-stone of the sciences." Ibid., VII, 534E.

62. Par., 136E.

63. Cf. supra, 23-24.

infallible; only opinion errs. The attempt to reduce knowledge to sensation leads to irreconcilable difficulties; and knowledge cannot be opinion, for knowledge is not knowledge if it errs.

2) The theory that "all is motion" makes knowledge impossible. The realm of Ideas constitutes the eternal, immutable sphere which is not "becoming," but "being."

3) The objects of knowledge are not in the contingent, sensible world, but are the abstract, demonstrative Ideas in the realm of true being.

4) Truth and Good are not functions of each situation and each personality. There is an eternal Truth and an absolute Good which are true and good for all men at all times.

5) The mind in Protagoras' thought became a non-existent entity. Yet the mind is the only immediate reality known to men. In Plato's philosophy, the mind, though not in itself the highest value,⁶⁴ is the only faculty by which one can attain an apprehension of the Idea of the Good.

Thus Plato has defined both the method and the object of the philosopher. He is a lover of truth and being,⁶⁵ and these, his constant objectives, must always be before him. His is the task of being "the spectator of all time and all existence."⁶⁶

64. Cf. *Phil.*, 22D.

65. *Rep.* V, 475C.

66. *Ibid.*, VI, 486A.

C H A P T E R I V

ARISTOTLE'S INTERPRETATION OF

HOMO MENSURA OMNIUM

Aristotle's interpretation of Protagoras' saying, homo mensura omnium, followed essentially Plato's analysis of the dictum. He did not make an original attempt to understand the saying, or to reexamine the premises on which Plato presumed the theory to rest. To comprehend fully Aristotle's criticisms of Protagoras' thesis, it is therefore necessary 1) to recognize the influence of Plato's interpretation of the homo mensura formula on Aristotle, and 2) to determine the exact formulation of the problem of phenomenalism which Aristotle made.

1. The Influence of Plato's Interpretation

Plato identified the Protagorean saying with two theories: 1) that knowledge is sensible perception, and 2) that reality is a "flux." He maintained that Protagoras taught the doctrine that every man's opinion is true to himself, and that there is no criterion against which to attest the truth of opinions. Furthermore, Plato considered homo mensura to rest on the Heraclitean "flux:"¹ all things are

1. As he interpreted the theory. He was in error in this analysis, however. See *supra*, 15-16.

in a state of motion, and there is nothing stable or at rest in the universe.² Mind and object become non-existent; they come together only to generate sensations, and have no separate or independent existence.³ Knowledge thus becomes impossible.

In his own refutation of Protagoras' dictum, Aristotle, as Jowett observed, "is only following Plato."⁴ He accepted the two premises which Plato held were the basis of the Protagorean theory, namely, that knowledge is perception, and that reality is a complete and constant "flux." Thus it is the "Platonic Protagoras" which Aristotle criticized; and it is therefore not necessary to examine separately Aristotle's interpretation of the saying.

It should be noted again, however, that neither Plato nor Aristotle interpreted homo mensura accurately or adequately. Grote has written:

I have endeavored to show that the capital tenet of Protagoras is essentially distinct from the other tenets with which these two philosophers would identify it: distinct both from the doctrine of Herakleitus, That everything is in unceasing flux and process, each particular moment thereof being an implication of contradictories both alike true; and distinct also from the other dogma held by others, That all cognition is sensible perception... His tenet is nothing more than a clear and general declaration of the principle of universal Relativity.⁵

2. Supra, 20.

3. Supra, 22.

4. Jowett (tr. and ed.), DP¹, IV, 259.

5. Grote, ARI, 431.

2. Aristotle's Formulation of the Problem

Aristotle maintained that the source of error in Heraclitus' and Protagoras' theories was that they denied the Law of Contradiction;⁶ therefore, they dismissed the possibility of definition, for all attributes become only accidental.⁷ Both theories "proceed from the same way of thinking:"⁸ if all opinions and appearances are true, all statements must be true and false at the same time; and all opinions must be true because "right" and "wrong" can be determined only in the realm of opinion.⁹ The fundamental problem is metaphysical: if reality is as defined by Heraclitus,¹⁰ then Protagoras is right.

The cause of this difficulty, Aristotle held, is twofold. First, these thinkers have assumed that contraries or contradictories are true at the same time because they observe contraries coming into existence out of the same thing.¹¹ This statement is directed especially against Anaxagoras and Democritus, who taught that "all is mixed in all."¹² Anaxagoras thought that "a thing is mixed with or separated from already existing things."¹³ Democritus held this view by insisting that the void and the full exist alike in everything, thus affirming the existence of being and not-

6. An analysis of this law is found below, 45-48.

7. Meta. IV, 4, 1007a 29-31.

8. Ibid., IV, 5, 1009a 15.

9. Ibid., IV, 5, 1009a 6-12.

10. Aristotle's interpretation of Heraclitus is essentially the same as Plato's. See *supra*, 21-22.

11. Meta. IV, 5, 1009a 24-26.

12. Ibid., IV, 5, 1009a 28.

13. Fragment 17, in Bakewell, SBAP, 50.

being at the same time.¹⁴

The second cause of this difficulty is that some thinkers have inferred the truth of appearances from the observation of the sensible world.¹⁵ This had three results:

1) knowledge thus consists only of sensations;¹⁶ 2) "that which is" is identical with the sensible world;¹⁷ and 3) because the world of nature appears to be one of constant change, and about the constantly changing nothing true can be held, nothing can be truly affirmed.¹⁸

Thus Aristotle's analysis of phenomenalism started from essentially the same premises that Plato assumed. His problem was therefore to refute these suppositions, namely, that knowledge is sensation, and that reality is a complete "flux;" and to establish the validity of his own thought as part of his refutation of phenomenalism.

14. Fragment O, in Bakewell, SBAP, 60.

15. Meta. IV, 5, 1009b 1-2.

16. Ibid., IV, 5, 1009b 15.

17. Ibid., IV, 5, 1010a 1-3.

18. Ibid., IV, 5, 1010a 6-9.

CHAPTER V

ARISTOTLE'S REJECTION OF PHENOMENALISM

To comprehend the force of Aristotle's arguments against Protagoras' homo mensura formula, it is necessary to understand first the Laws of Contradiction and Excluded Middle. Indeed, Aristotle's thought turned to the philosophies of Heraclitus, Anaxagoras, and Protagoras because their systems, he held, denied these laws.¹ Therefore, Aristotle's refutation of homo mensura consists of two parts: 1) establishing the validity of these laws, and 2) an explicit statement of the manner in which the thought of Anaxagoras, Heraclitus,² and Protagoras violates the laws.

1. The Laws of Contradiction and Excluded Middle

The philosopher, Aristotle held, is he who studies being qua being;³ and, therefore, it is the function of the philosopher to be able to investigate all things.⁴ Important among these things are the principles of science, mathematics, and logic;⁵ but of greatest importance is the most certain prin-

1. Meta. IV, 4, 1005b 35.

2. Because Aristotle considered Protagoras' thesis to rest on the philosophies of Anaxagoras and Heraclitus, this refutation of phenomenalism necessarily involves a critique of these two thinkers. See *supra*, 43. It must be emphasized again, however, that this study has presented the thought of Anaxagoras and Heraclitus as Aristotle interpreted it, not as modern research views the thought of these men.

3. Meta. IV, 2, 1003b 18-19.

4. Ibid., IV, 2, 1004b 1.

5. Ibid., IV, 3, 1005a 19, 30; 1005b 6.

ciple of all, the Law of Contradiction.⁶ The study of this principle does not belong to the special sciences because the scientist assumes the validity of the law when he comes to his science.⁷ Yet the philosopher, whose task is the interpretation of all things, is faced with the problem of this principle.

The Law of Contradiction is: "that the same attribute cannot at the same time belong and not belong to the same subject and in the same respect."⁸ This is stated objectively as a law of being, but from it follows a psychological law:

to think that the same attribute does and does not belong to the same thing at the same time in the same respect would be to be oneself oppositely qualified at the same time in the same respect, and is therefore impossible.⁹

The Law of Contradiction together with the Law of Excluded Middle¹⁰ are the first principles of demonstration. Yet these laws do not themselves need to be demonstrated: those who demand its demonstration do so "through want of education, for not to know of what things one should demand demonstration, and of what one should not, argues want of education."¹¹ Ravaisson writes:

Le principe d'une démonstration est donc une proposition qui ne peut être prouvée et qui n'a pas besoin de l'être, c'est-à-dire où le

6. Meta. IV, 3, 1005b 17.

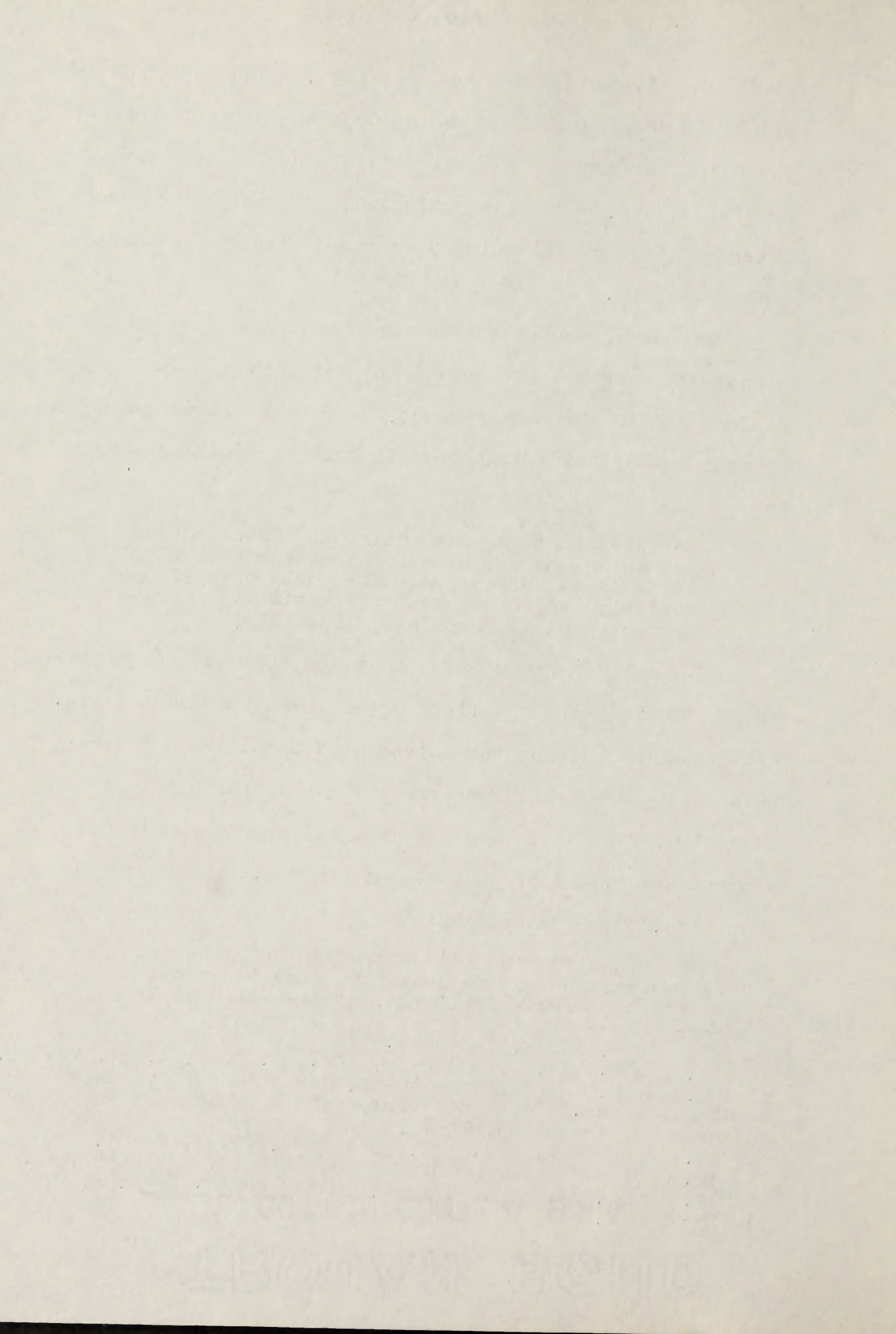
7. Ibid., IV, 3, 1005b 18. Cf. An. Post. I, 11, 77a 10.

8. Meta. IV, 3, 1005b 19-20. By a "subject," Aristotle meant substance. For a discussion of the meaning of substance and essence, see below, 62-69.

9. From Ross, ARI, 159. See Meta. IV, 3, 25-31.

10. For a discussion of Excluded Middle, see below, 48.

11. Meta. IV, 4, 1006a 5-6. See also An. Post. I, 2, 71b 25-72a 24.



rapport du prédicat au sujet est évident de soi-même.¹²

Nevertheless, Aristotle did offer many arguments and observations in support of the Law of Contradiction. First, to demand demonstration of this principle is to ask for an infinite regress of demonstrations.¹³ Yet such a regress is unnecessary, for there cannot be a principle more self-evident than this law even though positive proof is impossible.

In spite of this lack of positive proof, however, Aristotle maintained that the law could be demonstrated negatively. For example, Aristotle assumed that a name has a meaning: "it is impossible, then, that 'being a man' should mean precisely 'not being a man,' if 'man' not only signifies something about one subject but also about one significance..."¹⁴

Secondly, the denial of this law eliminates the possibility of definition because substance and essence have been done away with.¹⁵ Yet if all statements are accidental, there can be no subject about which the statements are made.¹⁶ An infinite regress of accidents is impossible, however, because an accident is not an accident of accident, but an accident of subject.¹⁷

A third negative argument in support of the law concerns negations: one must predicate of every subject the

12. Ravaisson, EMA, I, 365.

13. Meta. IV, 4, 1006a 9.

14. Ibid., IV, 4, 1006b 14-16.

15. Ibid., IV, 4, 1007a 25-31.

16. Ibid., IV, 4, 1007a 34-1007b 1.

17. Ibid., IV, 4, 1007b 10-16.

affirmation or negation of every attribute. But, "it is absurd if of each subject its own negation is to be predicable, while the negation of something else which cannot be predicated of it is not to be predicable of it."¹⁸ Thus, although lacking demonstration of the Law of Contradiction, Aristotle held that it was an immediately known, indubitable truth which is necessary for all knowledge.¹⁹

The Law of Excluded Middle is the second principium of thought which Aristotle held to be ultimate even though it is not capable of being proved by demonstration. It reads: "there cannot be an intermediate between contradictories, but of one subject we must either affirm or deny any one predicate."²⁰ That is, between two contradictories, one must be false.²¹ Yet because the Law of Excluded Middle is a supplement or correlative of the Law of Contradiction,²² a separate discussion of this law is unnecessary.

Thus Aristotle formulated the principia which he used to attack the theories of Anaxagoras, Heraclitus, and Protagoras. He charged these thinkers with violation of the implications of these maxims.

2. Refutation of Anaxagoras and Heraclitus

The theory of Anaxagoras which Aristotle attacked is that in the beginning all things were together.²³ Thereby,

18. *Meta.* IV, 4, 1007b 30-32.

19. Ravaisson's observation here is important: "Les axiomes ne sont pas la source des demonstrations: mais ils en sont la règle et la condition." *EMA*, I, 375.

20. *Meta.* IV, 7, 1011b 24.

21. *Ibid.*, IV, 8, 1012b 12.

22. See Grote, *ARI*, 426.

23. See Fragment 1, in Bakewell, *SBAP*, 49.

Anaxagoras denied all simple bodies and all definable attributes except *Noûs*.²⁴ The Law of Excluded Middle is, as Grote observed, "maintained by Aristotle as a doctrine in opposition to this theory of Anaxagoras."²⁵

Aristotle made two specific criticisms of this theory. First, the followers of Anaxagoras seemed to be speaking of the indeterminate, and, "while fancying themselves to be speaking of being, they are speaking about non-being; for it is that which exists potentially and not in complete reality that is indeterminate."²⁶ Thus, Aristotle held, Anaxagoras failed to make the distinction between potentiality and actuality,²⁷ which led him to deny the Law of Excluded Middle.

The second criticism is based on Aristotle's observation that according to Anaxagoras' view, "modifications and accidents could be separated from substances."²⁸ If this is true, then there is an intermediate term between contradictories. This criticism is made even more directly against Anaxagoras' theory that "all things are in everything."²⁹ If this is true, contradictories can be predicated of the same subject,³⁰ for "everything" includes contradictories.

The Law of Contradiction, as Grote again observed, "is intended by Aristotle to controvert Herakleitus, and to up-

24. This interpretation of Anaxagoras is Aristotle's. For a statement of Anaxagoras' view, see Fragment 12, in Bakewell, SBAP, 49.

25. Grote, ARI, 580.

26. *Meta.* IV, 4, 1007b 26-29.

27. For Aristotle's definition and use of these terms, see below, 56, especially n. 9.

28. *Meta.* I, 8, 989b 2.

29. See Fragment 6, in Bakewell, SBAP, 50.

30. *Meta.* XI, 6, 1063b 25.

hold durable substances with definable attributes."³¹ He interpreted Heraclitus' theory as meaning "that all sensible things are ever in a state of flux and there is no knowledge about them."³²

Aristotle's criticisms of Heraclitus' "flux" revolved around the possibility of knowledge; he considered knowledge impossible under the Heraclitean theory. His first argument was that if what was said by him is true, not even the statement itself will be true; i. e., that the same thing can both be and not be at the same time. For, when two statements are separated, the affirmation will be no more true than the negation. "The whole taken as an affirmation will be no more true than the negation."³³

This argument foreshadows the second:

The supporters of the ideal theory were led to it because on the question about the truth of things they accepted the Heraclitean sayings which describe all sensible things as ever passing away, so that if knowledge or thought is to have an object, there must be some other and permanent entities, apart from those which are sensible; for there could be no knowledge of things which were in a state of flux.³⁴

Yet men do have knowledge, and, therefore, there must be something in the universe which is not in a state of "flux."

Aristotle's critique of the thought of Anaxagoras and Heraclitus emphasizes an important fact: their theories did not follow the principia of thought which are necessary for knowledge. Reality as defined by these two thinkers

31. Grote, ARI, 579.

32. Meta. I, 6, 987a 34-35. Cf. Plato's interpretation, supra, 20.

33. Meta. IX, 5, 1062a 35-1062b 6. I. e., there must be principles of both motion and rest if there is to be knowledge. See below, 62; 69.

34. Meta. XIII, 4, 1078b 12-17.

does not admit the laws of thought. To be sure,

that region of the sensible world which immediately surrounds us is always in a process of destruction and generation; but this is--so to speak--not even a fraction of the whole, so that it would have been juster to acquit this part of the world because of the other part, than to condemn the other because of this.³⁵

To formulate a theory of reality in which reality itself violates the Laws of Contradiction and Excluded Middle makes knowledge impossible and the universe a chaos.³⁶

3. Refutation of Homo Mensura Omnium

The thesis of Protagoras was the third violator of the principia of thought to which Aristotle turned. He identified the saying, as did Plato,³⁷ with the view that knowledge is sensible perception.³⁸ But this theory controverts the Law of Contradiction, Aristotle held, and therefore he was led to criticize the dictum.

Regarding the nature of truth, Aristotle maintained that not everything which appears is true; i. e., that there is a difference between sensation qua sensation, and the uses to which sensation may be put. Protagoras, Aristotle argued, failed: 1) to make the distinction between thinking and sensation; and 2) to recognize the difference between entia and percepta.

35. Meta. IV, 5, 1010a 29-33.

36. Cf. "to seek truth would be to follow game." Ibid., IV, 5, 1009a 37. Also, "all attributes belong already to all subjects." Ibid., IV, 5, 1010a 37.

37. Supra, 18.

38. Meta. IV, 5, 1009b 13.

i. The confusion of sensation and knowledge

Sensation qua sensation is infallible when the senses perceive an "appropriate object," e. g., when the eyes see color.³⁹ To deny the infallibility of sensation leads to contradictions:

For it is possible that the same thing may appear to be honey to the sight, but not to the taste, and that, since we have two eyes, things may not appear the same to each, if their sight is unlike.⁴⁰

Furthermore, the senses obey the Law of Contradiction: "each of which senses never says at the same time of the same object that it simultaneously is 'so and not so'."⁴¹

The difficulty in Protagoras' view is that it can give no reasonable account of error.⁴² If knowledge consists of sensible perceptions alone, then "the same attribute does and does not belong to the same thing at the same time in the same respect." Thus the Law of Contradiction would be denied if Protagoras' dictum is true. But the senses do not disagree about a quality as they must if every man is to be right in his own opinion;⁴³ rather, they disagree "about that to which the quality belongs."⁴⁴ That is, although the senses do not violate the Law of Contradiction qua senses (i. e., sensing), the object to which the senses can, if

39. Meta. IV, 5, 1010a 16. The mechanisms of sensation in Aristotle's psychology are given below, 70-72.

40. Meta. IV, 6, 1011a 25-29.

41. Ibid., IV, 5, 1010b 18.

42. Cf. Plato's view, *supra*, 24-26.

43. Meta. IV, 5, 1010b 25. The alternative to this view, Aristotle recognized, would be the affirmation of complete relativism (*ibid.*, IV, 6, 1011b 4). Perhaps if he had followed this line of thought, he might have interpreted Protagoras more accurately (see *supra*, 12). Aristotle could not admit a theory of relativism, however. See below, 74.

44. Meta. IV, 5, 1010b 21.

there is no discerning principle, be considered to have and not to have the same attribute at the same time. The reason for this is, as Plato held,⁴⁵ that the mind does not have a separate existence in the theory of Protagoras, but comes together with the object only to generate sensations. Thus, Aristotle concluded, error cannot occur in sensation, but only in the combinations of sensations.⁴⁶

ii. The confusion of percepta and entia

The second difficulty in Protagoras' dictum is that in the investigation of the truth respecting entia, he supposed that entia were only percepta:

Now the view that neither the sensible qualities nor the sensations would exist is doubtless true (for they are affections of the perceiver), but that the substrata which cause the sensation should not exist even apart from sensation is impossible. For sensation is surely not the sensation of itself, but there is something beyond the sensation, which must be prior to the sensation; for that which moves in nature is prior to that which is moved, and if they are correlative terms, this is no less the case.⁴⁷

Aristotle saw that there is plausibility in Protagoras' thought because there is in nature much of the indeterminate or potential.⁴⁸ Yet the view does not contain the whole truth: it is not the same to change in quality and quantity, and granting that "in quantity a thing is not constant, still it is in respect of its form that we know each thing."⁴⁹ But

45. Supra, 21-22.

46. Meta. IV, 5, 1010b 2. This statement is discussed more fully below, 74-75.

47. Meta. IV, 5, 1010b 32-38.

48. Ibid., IV, 5, 1010a 3; cf. 1009a 32.

49. Ibid., IV, 5, 1010a 24-25.

to deny the real nature of entia is an untenable position, "for that which is losing a quality has something of that which is being lost, and of that which is coming to be, something must already be."⁵⁰ Therefore, Aristotle concluded, there is more to entia than percepta.

4. Summary of the Argument

Aristotle rejected the views of Heraclitus and Anaxagoras "which proceed from the sensible world"⁵¹ because they spoke only of the indeterminate or potential. Reality therefore would be chaotic because the principia of thought are not valid; and knowledge of such a reality is also impossible. Hence, Aristotle rejected Protagoras' dictum because: 1) it denied the infallibility of sensation, which leads to irreconcilable contradictions; and 2) it confused entia and percepta, thereby denying the true nature of entia.

Aristotle's problems were, therefore, to demonstrate that there is more to nature than the changing sensible world; that all things are not all in motion or all at rest, thus showing that reality does not violate the principia of demonstration and making knowledge possible; and to prove the existence of an unmoved mover which moves everything that is in motion.⁵²

50. Meta. IV, 5, 1010a 17-18.

51. See supra, 43-44.

52. These problems were formulated by Aristotle in Meta. IV, 8, 1012b 22-31.

C H A P T E R V I

ARISTOTLE'S REPLY TO PHENOMENALISM

There are three major parts of Aristotle's works which must be considered as elements in his rejection of the homo mensura formula. First, in direct opposition to the thesis of Heraclitus, upon which he considered Protagoras' dictum to rest, he formulated a rational definition of motion. For the understanding of his rejection of phenomenalism, a survey of his concept of motion is therefore necessary. Secondly, it is necessary to consider Aristotle's view of the object of knowledge, for Heraclitus--as he understood him--denied the possibility of an "object of knowledge." Lastly, because Protagoras believed that the objects of knowledge could not be apprehended by men, it is necessary to review Aristotle's concept of sensation and its relation to the knowing process.

1. Aristotle's Concept of Motion

Two factors are important for the consideration of Aristotle's concept of motion: 1) he considered nature to be a principle of movement,¹ and 2) he held that he was the first philosopher to deal expressly with movement.²

1. Phys. I, 2, 185a 13.

2. Meta. I, 4, 985b 17-19.

The Eleatics had denied the existence of movement altogether.³ The mechanists, Anaxagoras, Empedocles, and the Atomists,⁴ had denied the existence of change of quality: there is only a "coming together" and a "separating out."⁵ The Megaric school, while admitting the existence of movement, had divided it into indivisible unitary movements.⁶ Aristotle, however, rejected the thoughts of these schools and argued for the existence of continuous movement.⁷

1. Change, activity, and locomotion

Aristotle defined change⁸ as "the fulfilment of what exists potentially, in so far as it exists potentially."⁹ The difference between movement and activity is, as Ross has noted, that

in each moment of activity, potentiality is completely cancelled and transformed into actuality; in movement the transformation is not complete till the movement is over. In other words, movement differs from activ-

3. Meta. I, 4, 984b 1-8.

4. There is serious doubt whether either Anaxagoras or Empedocles was a mechanist; however, Aristotle considered them to be so.

5. De Gen. et Corr. I, 8, 325a 23-24.

6. Phys. VI, 1, 232a 6-10; 249a 28-68. Cf. Plato, Par., 156DE.

7. "Continuous" is defined by Aristotle as a state "when the touching limits of each of two things become one and the same and are, as the word implies, contained in each other." Phys. V, 3, 227a 11-12.

8. I. e., any change or development. Even logical implication (movement of thought) is included in this definition.

9. Phys. III, 1, 201a 10-11. Aristotle recognized the difficulty in defining "potentiality" and "actuality" (Meta. VII, 15, 1040a 5-8); he could only indicate its nature by pointing to particular instances. Thus a statue exists potentially in a block of marble, and the completed statue is actuality. Cf. Phys. III, 6, 206a 18-20.

ity as the incomplete from the complete; or, more loosely, movement is incomplete activity and activity is completed movement.¹⁰

Thus movement is a process of actualization, but one which precludes the continued presence of the potential.¹¹ Activity, on the other hand, is completed movement, and also includes the use of what is complete, e. g., the use of a brick qua brick.¹²

Change "is from something to something,"¹³ and occurs in all the categories. Fundamentally, there are two types of change: 1) absolute change, such as takes place in generation and destruction, and 2) local change, such as increase or decrease and locomotion. Change which is not accidental¹⁴ is between contraries,¹⁵ of which there are four possibilities: 1) from subject to subject; 2) from subject to non-subject (or "perishing"); 3) from non-subject to subject (or "becoming"); and 4) from non-subject to non-subject.¹⁶ Absolute change occurs in the category of Substance, which can undergo generation and destruction. Local change occurs in the categories of Quality, Quantity, and Place.¹⁷ The

10. Ross, *ARI*, 82.

11. *Phys.* III, 1, 201b 7-15. The sources of change are, therefore, form, matter, and privation, all three of which must be present in any instance of genuine change. These principles are discussed below, 63-65.

12. This distinction of the use of an actualized object involves the distinction between the first and second actuality. E. g., the first actualization of clay is a brick, while the actualization of a brick would be a house.

13. *Phys.* V, 1, 224b 35. Thus Aristotle considered change to be the inclusive term, while activity and locomotion are types of change.

14. Accidental change is not discussed by Aristotle because it is only accidental. *Phys.* V, 1, 224b 27.

15. Absolute change also occurs between contradictories. See below, 58.

16. *Phys.* V, 1, 225a 13-19.

17. It must be noted that change occurs in all the

fundamental distinction between absolute and local change is that the latter can occur only between contraries, while absolute change occurs between contradictories.¹⁸

Change in respect of Place is termed locomotion.¹⁹ It is the only type of change which is continuous, for it exists in space, and space is continuous. Locomotion itself, however, is complex, for there are three types of spatial movement: 1) movement in a straight line; 2) movement in a circle; and 3) movement from a combination of these two.²⁰ Movement in a circle is the most perfect type of movement; yet it is not its own efficient cause.²¹ Locomotion is thus the most general and primary change involving change of Place.²²

ii. Place

Aristotle's concept of locomotion implies that Place is something; and that it is not dependent on the object contained therein.²³ Place is defined as "the boundary of the containing body at which it is in contact with the contained body."²⁴ Parenthetically, Aristotle added, "By a contained body is meant what can be moved by way of locomotion."

categories. This list of the types of change is not meant to be complete, but rather to present examples of the way in which Aristotle's theory of change applies to the categories. See also below, n. 19.

18. *Phys.* V, 1, 225b 1-2.

19. *Ibid.*, V, 2, 226a 25-35. This study is limited to change in the category of Place because of the clarity with which the argument moves from the concept of locomotion to the postulation of an unmoved mover. For a complete analysis of change in all the categories, see Wild, SP, 37-53.

20. *De Caelo* IV, 2-3.

21. The prime mover is ultimately responsible for all movement. See below, 61.

22. *Phys.* IV, 3, 208a 31-32.

23. *Ibid.*, IV, 3, 208b 27-36.

24. *Ibid.*, IV, 4, 212a 5-7. Note that this boundary is motionless. *Ibid.*, IV, 4, 212a 20.

The characteristics of Place are: 1) it contains that of which it is the place; 2) it is no part of the thing; 3) the immediate place of a thing is neither less nor greater than the thing; and 4) it is separable, and can be left behind.²⁵

iii. Void

The concept of Void, Aristotle observed, was used by his forefathers for four purposes: 1) to explain motion, 2) to explain contraction, 3) to explain increase, and 4) to explain the means by which the heavens "inhale" (Pythagoreans).²⁶ They considered the void to be Place with nothing in it.²⁷

Aristotle argued against these arguments in favor of the non-existence of Void because: 1) the full can suffer qualitative change, and locomotion can occur when one body makes room for another; 2) things can contract by squeezing out what is contained in them; and 3) a body is increased by the addition of body.²⁸ Void, therefore, does not exist potentially or actually, "unless one is willing to call the condition of movement void."²⁹

25. Phys. IV, 4, 211a 1-5. The metaphysical status of Place thus explains movement "up and down," for every object has its own special Place to which it endeavors to return.

26. Ibid., IV, 6, 213b 3-29. The explanation of motion, contraction, and increase by means of the void was made expressly by Democritus. See Ueberweg, HOP, I, 69; also, Phys. IV, 6.

27. Phys. IV, 7, 213b 32-35.

28. Ibid., IV, 7, 214a 17-214b 11. Aristotle refutes the Pythagorean cosmology in De Caelo II, 13.

29. Phys. IV, 9, 217b 22.

iv. Time

Aristotle made two observations on the nature of time which became basic to his theory: 1) time exists with change,³⁰ and 2) time is not movement but is dependent on it.³¹ Yet time cannot be identified with movement for two reasons: 1) there is only one time, but there are many movements; and 2) time moves at one rate of speed, and cannot be fast or slow.³² Hence, Aristotle argued, "Time is not movement, but only movement in so far as it admits of enumeration."³³

"Now" is the measure of time; it makes time both continuous and divided. It leads to continuity because all "Nows" are almost identical; yet "Now" divides time into two infinities, the past and future.³⁴ Thus "Now" is not strictly time, but an attribute of it.³⁵

v. Motion and the mover

In every process of movement, there must be that which is potentially movable, and a mover. The mover is not that which can move, but that which actually does move.³⁶ Yet it is impossible that the actualization of the potentially

30. Phys. IV, 11, 218b 21.

31. Ibid., IV, 11, 218b 34.

32. Ibid., IV, 10, 218b 10-19.

33. Ibid., IV, 11, 219b 3-4. Crekas criticized this conception of time because it does not express duration. See Wolfson (tr. and ed.), CCA, 97.

34. Phys. IV, 11, 219b 9-13.

35. Ibid., IV, 11, 220a 21-23. The reason for this statement is that time is continuous because it is dependent on motion. "Now" is in a sense not continuous. Cf. ibid., IV, 11, 219a 10-14.

36. Ibid., III, 2, 202a 16-17.

movable and the action of the mover be different; their actualization must be one.³⁷ The complete actualization of movement, however, is "unmovement;"³⁸ therefore the mover in Aristotle's thought is an unmoved mover.

Aristotle's concept of motion logically leads him to the postulation of an unmoved Prime Mover. The argument in summary is: actuality must precede potentiality; for nothing is moved without a mover, and the mover is complete actualization.³⁹ Therefore, the ultimate cause of movement is a complete actualization of movement, or a Prime Mover.

The Prime Mover may be characterized (in its relation to motion) as: 1) unmoved, for the mover is the actualization of movement; 2) eternal, for movement is eternal;⁴⁰ 3) one, for motion is continuous, and continuity involves oneness;⁴¹ 4) circular, for circularity is the primary kind of movement,⁴² and only circular movement can be continuous and infinite;⁴³ and 5) having no parts or magnitude, and located at the circumference of the world.⁴⁴

In summary, Aristotle's concept of motion may be char-

37. *Phys.* III, 2, 202a 37. Cf. *Meta.* XII, 6, 1072a 15.

38. See *supra*, 57.

39. *Meta.* XII, 6, 1071b 15-22.

40. *Phys.* VIII, 6, 259a 15.

41. *Ibid.*, VIII, 6, 259a 17.

42. *Ibid.*, VIII, 7, 260b 15-17.

43. *Ibid.*, VIII, 7, 261a 27-261b 28.

44. *Ibid.*, VIII, 10, 266b 25-27; 267b 5-8. Aristotle's conception of the unmoved mover involved two premises which he had to prove: 1) the mover must be moved as a whole ("according to its essence"), and 2) the principle of motion must be within the object ("by its essence"). These problems have been answered by: 1) the definition of motion as the actualization of the potentially movable, and 2) the concept of the Prime Mover as the complete actualization (Pure Form) of the potentially movable.

acterized thus: 1) motion is defined as the movement from potentiality to actuality of the potentially movable; 2) motion is of three kinds, qualitative, quantative, and locomotion, of which locomotion is the most simple and primary; 3) locomotion depends on Place for its existence; 4) the mover is unmoved, and is the complete actualization of the potential; and 5) ultimately, the primum motum is both the logical and temporal explanation of motion in the universe.

Aristotle's concept of motion stands in direct opposition to the theory of the "flux." By his theory, he conceived of a universe which contains movement, but the source of this movement is itself unmoved. Therefore, he held, the universe is intelligible because it does contain principles of both motion and rest. The second problem is thus to determine the object of knowledge in this universe.

2. The Object of Knowledge⁴⁵

Substance for Aristotle is the primary category: those categories other than Substance are "like an offshoot and accident of being."⁴⁶ Substance shows its priority in three ways: 1) because it can exist separately while the others cannot; 2) because a definition must always include the definition of the underlying substance; and 3) because a thing

45. Aristotle recognized four objects of inquiry in the "four causes:" material, formal, efficient, and final; and three branches of study: things at rest, things in motion but indestructible, and destructible things. Cf. Phys. II, 7, 198a 25-31. This study is confined to essence, however, because essence is the starting point of everything. See below, 65.

46. Eth. Nic. I, 6, 1096a 22.

is known better when "what it is" is known before what Quality, Quantity, or Place it has.⁴⁷

The meaning of substance is "that which is neither predicable of a subject nor present in a subject;" therefore, substance is the true object of knowledge.⁴⁸ Yet this answer was not sufficient for Aristotle: he proceeded to inquire what in individual substances makes them substances.

i. Matter and form

Every concrete thing in the universe, Aristotle held, is a combination of matter and form.⁴⁹ This distinction between form and matter is one of the main tenets of philosophia prima; for they are two correlates implied in reality in every concrete individual, although they can be logically separated and studied. Aristotle's analysis of reality thus brought out three principles or points of view for study: 1) the matter, 2) the form, and 3) a compound of the two, the ens.⁵⁰

Matter qua matter is unknowable. It is of two types: 1) perceptible, e. g., "bronze and wood and all matter that is changeable;" and 2) intelligible, "that which is present in perceptible things not qua perceptible, i. e. the objects

47. Meta. VII, 1, 1028a 32-1028b 2.

48. Categ., 5, 2a 12. Substance and essence are almost synonymous terms, although there is a difference: substance is an ontological term, essence is an epistemological term. Thus, epistemologically speaking, essence is the true object of knowledge. See below, 65-69.

49. Except God, who is Pure Form, and "active reason" (discussed below, 74).

50. In Phys. I, Aristotle introduced privation as a third principle. Yet he claimed that the introduction of this principle is only a more minute discrimination. Ibid., I, 7, 190b 29.

of mathematics."⁵¹ Yet of these there is no definition:
 "but they are known by the aid of intuitive thinking or of
 perception."⁵²

Matter cannot exist by itself, i. e., there is no "pure matter," nor can it be understood when taken out of its relativity to form. It can be characterized, however, as the potential, imperfect, undefined, and indeterminate something which is not actual and may not become so, but which is prepared to pass into actuality when an energizing principle comes to aid.⁵³

Form, like matter, Aristotle considered to be neither produced nor made: only the concrete individual is produced.⁵⁴ Yet in Aristotle's hierarchy, matter is the inferior and form the superior,⁵⁵ although neither of the two can escape its relateness.⁵⁶ This relation is, as Grote observed, that:

the Form stands first, the Matter second...
 The Form is higher, grander, prior in dignity and esteem, more Ens, or more nearly approaching to perfect entity; the Matter is lower, meaner, posterior in dignity, farther removed from perfection.⁵⁷

51. Meta. VII, 10, 1036a 9-12. Corresponding to sensible and intelligible matter are sensible and intelligible forms. This distinction, not important here, is discussed below, 70; 74.

52. Meta. VII, 10, 1036a 7.

53. Ibid., IX, 8, 1050b 10-15. Thus, Aristotle distinguished types of matter: earth is not potentially a man (ibid., IX, 7, 1038b 36). The matter for man is that which will become a man when the form of man is imposed on it.

54. Ibid., VII, 8, 1033b 10.

55. In De Gen. An. I, 21, 729a 13-15, Aristotle compares form and matter to male and female: the female (matter) is passive; the male is active, and the principle of movement comes from him.

56. Meta. VII, 8, 1033b 19. This observation is directed against Plato's theory of substantial Ideas which exist in the realm of being. See Meta. VII, 8, 1033b 19-1034a 7, for the complete statement of this criticism. Aristotle held that form cannot exist as a separate, substantial entity.

57. Grote, ARI, 455.

The combination of form and matter constitutes the concrete individual. Thus, for example, the form man, together with the matter bones and flesh, constitutes a man:

And, when we have the whole, such and such a form in this flesh and in these bones, this is Callias or Socrates; and they are different in virtue of their matter (for that is different), but the same in form; for their form is indivisible.⁵⁸

Thus, Aristotle held, there is no need to assume the Platonic Idea as an example or form; for a man is sufficient within himself to be "formed-matter."⁵⁹

The probabilities as to the nature of substance are three: 1) either substance is form, or 2) it is matter, or 3) it is a unity of form and matter, i. e., the concrete individual. It remains, therefore, to determine the exact object of knowledge.

ii. Essence

To know a thing, Aristotle held, is to know its essence;⁶⁰ and both the definition of a thing and its essence belong primarily to substance.⁶¹ Furthermore, substance is the same as its essence.⁶² Therefore, Aristotle concluded, substance (i. e., essence) is the primary subject of inquiry;⁶³ for, "as in syllogisms, substance is the starting-point of everything."⁶⁴

58. *Meta.* VII, 8, 1034a 5-8.

59. *Ibid.*, VII, 8, 1034a 1-3. Another criticism of the Ideas is given below, 66.

60. *Meta.* VII, 6, 1031b 18-22.

61. *Ibid.*, VII, 4, 1030b 5.

62. *Ibid.*, VII, 6, 1032a 5-10. The distinction between substance and essence is that substance is subject in an ontological sense, while essence is subject in an epistemological sense.

63. *Ibid.*, XII, 1, 1069a 18.

64. *Ibid.*, VII, 9, 1034b 30-31.

Before he attempted to define essence accurately, Aristotle considered the characteristics which essence must contain. First, he held that essence must in some way exist before the concrete individual, for "it is impossible that anything should be produced if there were nothing existing before."⁶⁵ Secondly, it seems impossible that essence should be destroyed: essence must be eternal.⁶⁶ If essence is contingent, both Heraclitus and Protagoras were right.⁶⁷ Thirdly, essence must be simple. Violation of this postulate, Aristotle held,⁶⁸ has led certain thinkers (Platonists) to formulate a realm of substantial Ideas⁶⁹ which constitutes the essence of contingent things. But this view must also postulate an infinite number of Ideas to explain generation and destruction, and is therefore unsatisfactory.⁷⁰

Fourthly, Aristotle held that essence must be both of the universal and the form:⁷¹ essence is not essence unless it somehow expresses the universal; and unless form is included, essence means nothing because matter is unknowable.⁷²

65. *Ex nihilo nihil fit.* *Meta.* VII, 7, 1032b 30.

66. *Ibid.*, VIII, 8, 1043b 15-23. Concerning the essence of destructible things, Aristotle held that perhaps the things formed in nature are not substances at all, and that nature is the only substance of "natural things." However, see below, 68.

67. *Supra*, 44.

68. *Meta.* VII, 14, 1039a 24-1039b 16.

69. Note that in Plato's last period of development, the Ideas lose much of their substantiality and separate existence. *Supra*, 38.

70. This is the meaning of the famous "third man" argument. It is often accredited to Aristotle, but was first formulated by the Sophist Polyxenus. See Gomperz, *GT*, III, 152, for a discussion of Aristotle's use of the argument, as well as for references given there.

71. *Meta.* VII, 11, 1036a 29.

72. *Cf. supra*, 63.

Fifthly, essence must be knowable. Definition is the rational explanation or formula of essence,⁷³ and Aristotle held that essence can be apprehended by human reason and expressed in terms of a definition.⁷⁴

Aristotle first considered matter as constituting essence. But matter qua essence does not meet the requirements for essence, for matter is unknowable per se, i. e., completely without form.⁷⁵ Furthermore, the very concept of matter excludes universality and form, and therefore matter cannot be essence. Form, on the other hand, violates the postulation concerning the simplicity of essence; and, as Aristotle observed:

so to reduce all things thus to forms and to eliminate the matter is useless labour; for some things surely are a particular form in a particular matter, or particular things in a particular state.⁷⁶

The universal had been considered essence by many of Aristotle's predecessors. But this identification is unacceptable. First, the essence of a thing is that which is peculiar to it, but a universal is common because it can be applied to more than one thing.⁷⁷ Secondly, substance means that which is not predicable of a subject, but a universal is predicable of some subject always.⁷⁸ Furthermore, no universal is a concrete object: no "animal" exists apart

73. Meta. VII, 4, 1031a 14.

74. This is possible because Aristotle was an epistemological monist. See below, 74.

75. Meta. VII, 10, 1036a 9.

76. Ibid., VII, 11, 1036b 22-24.

77. Ibid., VII, 13, 1038b 10-11. Cf. *supra*, 66. This statement may seem to be a contradiction to Aristotle's earlier consideration. His meaning here, however, seems to be that essence is universal, but the universal is not essence.

78. Meta. VII, 13, 1038b 15.

from particular kinds of animal.⁷⁹ Therefore, no universal can be a substance, for a universal indicates a "such," not a "this."⁸⁰

Aristotle proposed to confine himself to perceivable essences which are recognized by all.⁸¹ Now sensible objects always include matter, and therefore matter must be essence in one way.⁸² In another way, the form must be essence because it does express a certain universality.⁸³ And again, the combination of form and matter expresses essence in a certain manner because it is capable of existing separably in an absolute sense.⁸⁴ Thus, sensible essence consists in actuality⁸⁵--in the concrete object which is a combination of form and matter.⁸⁶

The essence of sensible objects, however, is imperfect, and it is, therefore, not the only essence which Aristotle recognized. The sensible essence is perishable because it does contain matter.⁸⁷ But there is an imperishable essence

79. *Meta.* VII, 13, 1038b 33.

80. *Ibid.*, VII, 13, 1039a 16. Aristotle recognized that this statement involved a problem: how can an essence be defined if it is not a universal in any sense (*ibid.*, VII, 13, 1039a 15-23)? His concept of essence is designed to answer this problem.

81. *Ibid.*, VIII, 1, 1042a 26.

82. *Ibid.*, VIII, 1, 1042a 33.

83. *Ibid.*, VIII, 1, 1042a 29.

84. *Ibid.*, VIII, 1, 1042a 31.

85. *Cf. De An.* II, 1, 412a 22.

86. This statement emphasizes the theory behind Aristotle's emphasis on scientific observation. The objects of knowledge are not in a realm of Ideas, but, at least as far as sensible essences are concerned, are known by studying the world of nature. This stands in direct opposition to Plato's view that the senses hinder the soul in its search for true being. *Cf. supra*, 22, n. 32; 37.

87. *Meta.* VIII, 1, 1042b 7. A second "movable essence" in addition to the sensible is the "intelligible essence." This is discussed below, 74.

of pure actuality which is prior to all potentiality.⁸⁸ The Unmoved Mover is the pure essence or substance of the universe; and it is this concept which is a direct refutation of Heraclitus' "flux."⁸⁹

The concept of essence provided Aristotle with a universe which could be rationally described because it contains principles both of motion and rest; and because essence exists in this universe. Thus it remained for Aristotle's final refutation of phenomenalism to give a description of the psychological processes by which men can get accurate knowledge of this universe.

3. Sensation and Knowledge

Aristotle began his study of the soul by recognizing that a simple definition of the soul would not give a sufficient account of the varieties of its manifestations;⁹⁰ yet there is an essential nature of the soul which is common to all, and this essence is the object of the investigation.⁹¹ The soul, the essence of all living things, is defined as "an actuality or formulable essence of something that possesses a potentiality of being besouled;"⁹² i. e., of a natural body furnished with organs. A living thing, therefore, consists of both body and soul, and the question

88. Aristotle's argument for the existence of a prime mover is given supra, 60-61.

89. I. e., the Unmoved Mover is not in the phenomenal world. For a statement of the problem of the "flux," see supra, 50.

90. *De An.* I, 1, 402b 5-7.

91. *Ibid.*, I, 1, 402b 23-25.

92. *Ibid.*, II, 2, 414a 26-27.

whether they are one or two is meaningless.⁹³

Living may mean thinking, perception, local movement, or growth and decay;⁹⁴ yet the power of self-nutrition can be isolated from the other powers, but not they from it.⁹⁵ The nutritive faculty is therefore the minimum element of the soul, for its possession "leads us to speak of things as living at all,"⁹⁶ and it is common to all living things.

i. Sensation

The possession of sensation, of which the simplest and most common form is touch, is the faculty which separates the animal and vegetable kingdoms.⁹⁷ The power of sensation belongs to the sensible faculty of the soul.

Aristotle considered sensation to be essentially a process of actualization which depends on movement or affection from without.⁹⁸ The potentiality of the sensible is two-fold: 1) the object is potentially capable of being sensed, and 2) the sense organ which has the power of sensation is potentially like what the sensed object is actually.⁹⁹ In the process of actualization, the sense organ receives the sensible forms of things without the matter.¹⁰⁰

93. De An. II, 1, 412b 5-7.

94. Ibid., II, 2, 413a 24-25.

95. Ibid., II, 2, 413a 31-33.

96. Ibid., II, 2, 413b 2. Note that Aristotle's study of the soul included all living things, both plants and animals.

97. Ibid., II, 2, 413b 1-4. Aristotle held that conation arises from this sense. Ibid., II, 3, 414b 4.

98. Ibid., II, 5, 416b 34.

99. Ibid., II, 5, 418a 3-4.

100. Ibid., II, 12, 424a 18. Also included in the sensible faculty of the soul are memory and imagination. See De Mem. et Rem., 1, 449b 1-451a 19; and De Som., 1, 459b 1-25.

There are three kinds of sensible objects: 1) those which are perceptible to one sense, 2) those which are common to many senses, and 3) the incidental objects of sense. Only the first type of object "constitutes the object of sense in the strictest sense of the term."¹⁰¹

Aristotle's conception of the mechanisms of sensation is monistic¹⁰² despite the fact that he considered a medium necessary for the actualization of sensation;¹⁰³ for the process of sensation involves only one actualization--it is but one fact.¹⁰⁴ Therefore, Aristotle stood in direct opposition to Protagoras' theory of perception: the senses can and do give accurate information of the external world qua sensible objects;¹⁰⁵ and there is no impassible barrier between the receiving mind and the object.

Aristotle held that there are only five special senses: touch, sight, taste, smell, and hearing. Beyond these there are no more.¹⁰⁶ Yet there is no special sense-organ¹⁰⁷ for the "common sensibles," e. g., movement.¹⁰⁸ The existence of a special organ, however, is unnecessary: "there is already in us a general sensibility ["common sense"] which enables us to perceive them directly."¹⁰⁹

101. *De An.* II, 6, 418a 6-25.

102. Aristotle was epistemologically monistic. See below, 74.

103. See, e. g., his discussion of hearing, *De An* II, 8, 420a 3-19.

104. *Ibid.*, III, 2, 425b 26. The only distinction that can be made here is the difference between, e. g., physical and psychological sound. Yet they do not exist separately: they are merely different ways of looking at one actuality.

105. *Ibid.*, II, 5, 418a 15-16.

106. *Ibid.*, III, 1, 424b 20.

107. The sense and its organ are the same in fact, but their essence is different. The organ is spatial, but the sensation is not. See *ibid.*, II, 12, 424a 25.

108. *Ibid.*, III, 1, 424b 14.

109. *Ibid.*, III, 1, 424b 28-29.

The functions of the common perceptive faculty are four-fold: 1) to perceive the "common sensibles,"¹¹⁰ 2) to perceive the "incidental sensibles," i. e., a patch of white is known to be Cleon's son,¹¹¹ 3) to perceive a perception, i. e., to be aware of a sensation,¹¹² and 4) to discriminate between the objects of two senses.¹¹³

ii. Thought

The ancients (including Protagoras), Aristotle held, identified thinking and perceiving,¹¹⁴ but they could not account for error.¹¹⁵ They were thus left with a dilemma: "either (1) whatever seems is true (and there are some who accept this) or (2) error is contact with the unlike; for that is the opposite of the knowing of like by like."¹¹⁶ But both error and knowledge do exist in respect to contraries.¹¹⁷

Yet it is impossible that perceiving and thinking should be identical, first, because perceiving is universal in the animal world while thinking is found only in a small division of it;¹¹⁸ and secondly, speculative thinking is distinct from perceiving because it deals with rightness and wrongness,

110. *De An.* III, 1, 425a 27.

111. *Ibid.*, III, 1, 425a 25.

112. *Ibid.*, III, 2, 425b 12-25. This passage concerns the difficulties of self-consciousness; yet Aristotle apparently did not assign the "common sense" the function of self-identification. This function seems to involve both the sensible and rational elements of the soul.

113. *Ibid.*, III, 2, 426b 16-427a 14.

114. *Ibid.*, III, 3, 427a 22.

115. *Ibid.*, III, 3, 427b 1.

116. *Ibid.*, III, 3, 427b 2-4.

117. *Ibid.*, III, 3, 427b 5.

118. *Ibid.*, III, 3, 427b 8.

while perception of the special objects of sense is always free from error.¹¹⁹ Thinking, therefore, is different from perceiving, and consists partly of imagination, partly of judgment.

Imagination is not sense for the following reasons:¹²⁰

1) sense is either a faculty or an activity, while imagination takes place in the absence of both; 2) sense is always present, imagination is not; 3) sensations qua sensations are always true, imaginations are usually false; 4) imagination does not function with sensation unless there is a failure in the exercise of the sense; and 5) visions appear even when the eyes are shut. Furthermore, imagination cannot be confused with opinion because:¹²¹ 1) opinion involves belief, and brutes have imagination but no belief; and 2) every opinion is accompanied by conviction gained through reason, but brutes do not have reason. Imagination, therefore, can be neither sensation nor opinion, nor a state compounded from them.

Yet imagination is in some sense dependent on sensation because it is a movement.¹²² Of the three types of sensation,¹²³ error can occur only in the comparison of sensible qualities and in the perception of universal attributes.¹²⁴ But if "imagination presents no other features than those enumerated and is as we have described, then imagination must

119. *De An.* III, 3, 427b 9-13.

120. *Ibid.*, III, 3, 428a 5-17.

121. *Ibid.*, III, 3, 428a 20-428b 8.

122. *Ibid.*, III, 3, 428b 10-17.

123. See *supra*, 71.

124. *De An.* III, 3, 428b 25-30.

be a movement resulting from an actual exercise of a power of sense."¹²⁵

The thinking part of the soul, Aristotle held, while impassible, must be capable of receiving the form of an object, i. e., that it must be potentially identical with the object, "Mind must be related to what is thinkable, as sense is to what is sensible."¹²⁶ But, if the mind is only potential until it thinks, it is nothing;¹²⁷ and therefore Aristotle was forced to distinguish between active¹²⁸ and passive reason.

Everything in nature contains two factors, matter and form, and these elements must also be found in the soul.¹²⁹ Passive mind is the matter of the soul, for it is only a potentiality, i. e., it contains the forms of intelligible objects potentially.¹³⁰ Active mind, however, is separable, impassible, unmixed, for its essential nature is activity.¹³¹ It is the form of thinking.

Aristotle's epistemological monism is very clear in his conception of knowledge. Actual knowledge is identical with its object; potential knowledge in the individual is prior to actual knowledge, "but in the universe it has no priority even in time; for all things that come into being arise from what actually is."¹³²

Error, Aristotle held, "always involves a synthesis."

125. De An. III, 3, 428b 31-429a 7.

126. Ibid., III, 4, 429a 17.

127. Ibid., III, 4, 429a 24.

128. Aristotle did not write of an "active reason" although he did mention "passive reason."

129. De An. III, 5, 430a 10-13.

130. "Mind is the form of forms." Ibid., III, 8, 432a 2.

131. Ibid., III, 5, 430a 17.

132. Ibid., III, 7, 431a 1-3.

It is found only where objects of thought are put together in a quasi-unity. Error cannot occur in either sensation or knowledge qua sensation or knowledge:

Assertion is the saying of something concerning something, e. g. affirmation, and is in every case either true or false: this is not always the case with mind: the thinking of the definition in the sense of constitutive essence is never in error nor is it the assertion of something concerning something, but, just as while the seeing of a special object of sight can never be in error, the belief that the white object seen is a man may be mistaken, so too in the case of objects which are without matter.¹³³

iii. Résumé of sensation and knowledge¹³⁴

The soul is in a way all existing, for existing things are either sensible or thinkable: sensation is in a way what is sensible, and knowledge is in a way what is knowable. The problem has been to determine in what way.

Knowledge and sensation are divided to correspond with reality: potential sensation and knowledge answers to potentialities, actual sensation and knowledge answers to actualities. Within the soul the faculties of knowledge and sensation are potentially these objects, i. e., the forms of these objects are present. Yet because there is nothing separate from spatial magnitudes, the objects of thought are in sensible forms.¹³⁵ Therefore, nothing can be learned in

133. *De An.* III, 6, 430b 26-30.

134. This summary is found in *ibid.*, III, 8, 431b 20-432a 14.

135. See *supra*, 68, especially n. 86. Note that in Plato's final period of development, during which Aristotle was his student, there is an increasing emphasis on the value of experience. *Supra*, 38.

the absence of sense; and the mind is always aware of an image when it thinks, for images are like sensuous objects except that they contain no matter. Yet a concept is not an image even though concepts necessarily involve them.

4. The Final Rebuttal of Phenomenalism

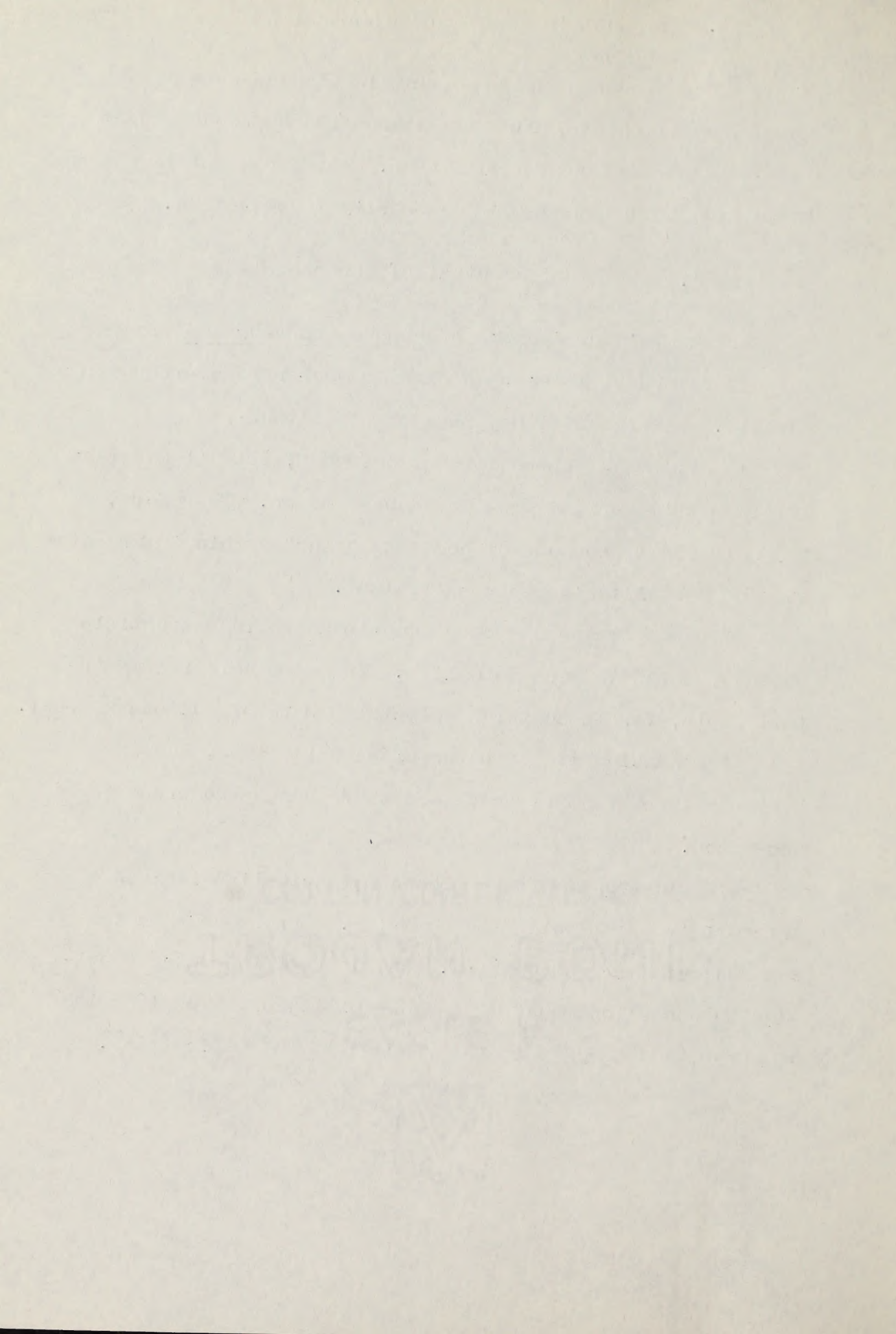
Aristotle's criticisms of homo mensura omnium brought out several problems which he had to answer to overthrow the formula. His rebuttal may be summarized thus:

1) Nature is a principle of movement, but all movement is ultimately derived from an unmoved mover. Therefore, the universe is not one of complete "flux" as his interpretation of Heraclitus' theory maintained.

2) The ultimate object of knowledge is indestructible essence, which is pure actuality. Thus the universe is intelligible, for it contains principles both of motion and rest.

3) Sensation is a process of actualization, and is monistic in character; therefore there can be no error in sensation.

4) Thinking is also a process of actualization; and Aristotle's epistemology is monistic. Error occurs only when objects are not unified. Any attempt to reduce knowledge to sensation removed the possibility of an explanation of error, and leads only to irreconcilable difficulties.



C O N C L U S I O N

Phenomenalism as a theory in Greek philosophy was first formulated by Protagoras in his famous dictum, homo mensura omnium. Plato and Aristotle interpreted the doctrine as meaning that knowledge consists in sensible perception; and they believed that the saying was based on the theory of universal "flux" formulated by Heraclitus, although they misinterpreted the meaning of Logos. Both Plato and Aristotle rejected phenomenalism.

Plato's criticisms and rejection of phenomenalism may be summarized thus:

- 1) Phenomenalism confuses sensation with opinion and knowledge, and thus denies the possibility of attaining truth.
- 2) Sensation qua sensation is infallible; yet the theory that knowledge is perception makes a rational explanation of error impossible, for perceptions make contradictory claims concerning the object to which they refer.
- 3) The theory of the "flux" makes knowledge impossible, for if there is to be knowledge, the universe must contain principles of both motion and rest.
- 4) Mind is the only immediate reality known to men; yet the theory of Protagoras makes mind non-existent. The senser and the sensed come together only to generate sensa-

tions, and neither the mind or the object is real.

5) The realm of Ideas fulfills the ontological function of constituting the eternal, immutable principles in the universe, and the epistemological function of being the objects of thought.

The conclusions of Aristotle's criticisms of phenomenalism may be summarized thus:

1) The Laws of Contradiction and Excluded Middle are the principia of thought and being. Protagoras and Heraclitus denied these laws, and thereby eliminated the possibility of definition.

2) The theory of the "flux" denies the possibility of knowledge and makes the understanding of error impossible; yet there are principles of rest in the universe, and knowledge is therefore possible.

3) Protagoras' theory confused sensation and knowledge, and percepta and entia. To confuse sensation and knowledge leads to irreconcilable difficulties, for sensation is infallible and yet error exists. Error can result only from an improper union of a form of the mind and a form from an object. The confusion of percepta and entia does not account for the true nature of entia, for there is more to entia than what is given in sensation.

4) Nature is a principle of movement, but the source of all movement is itself unmoved. The universe does obey the laws of thought and is therefore intelligible.

5) The object of knowledge is essence, which is actuality. The ultimate substance of the universe is eternal, immutable Pure Actuality.

6) Knowledge of the universe is possible because the mind is "the form of forms;" Aristotle was an epistemological monist, and the actualization of the object and the thought constitutes but one fact.

A B S T R A C T

The purpose of this thesis is to present a concentrated study of the Platonic and Aristotelian theories of epistemology and metaphysics in their relationship to the doctrine of phenomenalism.

Phenomenalism is the theory which limits all knowledge and reality to phenomena, although the term has also been applied to such systems as those of Kant, Comte, and Spencer, which limit knowledge to phenomena though the reality of a thing-in-itself is not denied.

As a Greek doctrine, phenomenalism was formulated by Protagoras in his famous saying, homo mensura omnium. He arrived at this conclusion because of his theory of perception: between the knower and the object are the senses; therefore, no one can know reality, and no one has the right to contradict the opinion of another. The humanist Schiller has interpreted the saying as meaning that truth is a function of each situation and each personality.

Plato identified the dictum with the theory that knowledge is sensible perception. He considered the saying to be based on a perverted interpretation of Heraclitus' "flux." Plato did not interpret Logos adequately. His arguments against Protagoras' saying were: 1) phenomenalism so defined

confuses sensation with opinion and knowledge: it denies the infallibility of sensation and leads to irreconcilable contradictions. 2) The extreme interpretation of the "flux" does away with species and genera, making knowledge impossible. 3) In Protagoras' theory, mind--man's only immediately-known reality--loses its identity: mind and object come together only to generate sensations, and they have no absolute existence. 4) Knowledge is not true opinion because knowledge qua knowledge involves no error, while error occurs frequently in opinion.

Plato's epistemology is based upon the fundamental distinction between appearance and reality. Sensation, which deals with appearance, is infallible; but is useful only as it serves as a reference for reason. Opinion, which also deals with appearance, is the combination of sensation and knowledge. The method in opinion is hypothetical, and is the method of the sciences. Mathematics, however, is unique in that it lies between the world of sense and reality.

In the realm of knowledge it is necessary to consider the development in Plato's thought. In his early period (Meno), Plato taught a psychological, a priori knowledge. In the second period (Symposium, Phaedo, Republic), however, knowledge is gained by intuition, and is based on a principle which is above all doubt. In Later Platonism (Sophist, Laws, Philebus) the emphasis on rational intuition disappeared, and knowledge became a coherent body of judgments. The object of knowledge is the realm of Ideas,

which are the eternal, immutable essences of contingent things.

Plato's theory of Ideas fulfilled the ontological function of providing a universe which contains principles of rest; and an epistemological function in that the Ideas are the objects of knowledge.

Aristotle's interpretation of the homo mensura formula followed essentially Plato's analysis of the saying. His rejection of phenomenalism consisted of two parts: 1) a defense of the Laws of Contradiction and Excluded Middle; and 2) a statement of the manner in which the thought of Heraclitus and Protagoras violated these laws.

1) The Laws of Contradiction and Excluded Middle are the first principles of demonstration, even though they cannot be demonstrated positively. Yet they are more self-evident than any other truth, and they cannot be denied without being affirmed.

2) Heraclitus' "flux" (as Aristotle interpreted it) denied the ontological implications of the Law of Contradiction, for all subjects contain all predicates. Protagoras' dictum violated the law because it failed to distinguish between thinking and sensation, and between percepta and entia. Sensation itself is infallible; error involves a synthesis of thought and sensation. Furthermore, the confusion of percepta and entia does not account for the true nature of entia, for there is more to entia than what is given in sensation.

Aristotle's reply to phenomenalism consisted of three parts. First, his concept of movement as the actualization of the potentially movable involved the postulation of an unmoved mover who is ultimately responsible for all movement in the universe. Secondly, the concept of essence, which is defined as actuality, provided him with an object of knowledge which is not in motion. These two concepts provided Aristotle with a universe which is intelligible because it contains principles of both motion and rest. Thirdly, knowledge of this universe is possible because the knowing process is monistic, i. e., the actualization of a thought and the intelligible form of an object constitutes one fact.

The conclusions of this study are:

- 1) Both Plato and Aristotle recognized that an attempt to reduce knowledge to sensation leads only to contradictions, and makes the explanation of error impossible.
- 2) Both philosophers held that the universe must contain principles of motion and rest.
- 3) Both men held that mind is irreducible to any other metaphysical reality, and that the mind can and does attain knowledge.
- 4) Plato answered the problems of phenomenalism by positing a realm of eternal, immutable Ideas. Aristotle, however, criticized the Ideas because they do not explain motion, and because an infinite number of Ideas is needed to explain the sensible world. The concept of essence provided the object of knowledge for Aristotle.

B I B L I O G R A P H Y

Throughout the body of the thesis, books and articles have been referred to by the author's last name, the standard abbreviation, and the page number. In the case of Plato and Aristotle, however, the name is omitted unless it is needed for clarity. The purpose of the bibliography is to explain the abbreviations and provide complete documentary data of the sources used.

The abbreviation "tr." means either "translator" or "translated by;" "ed." means either "edition," "editor," or "edited by;" and "n." means either "footnote" or "bibliographical note." Undesignated Roman numerals refer to volumes, Arabic numerals to pages. When two dates appear, the one in parentheses is that of the first edition, and the other is the edition referred to.

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